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ABSTRACT

This document is intended to help those who provide assistance for career decision making in Wisconsin to incorporate labor market information in their work with clients. The topics covered are as follows: (1) career decision making; (2) what labor market information is, including occupational descriptions and information on wages, hours, fringe benefits, employment trends, entry qualifications, advancement opportunities, education and training programs, the expected impact of technology, military training, and occupational characteristics; (3) how to use labor market information; (4) why counselors and others should use it; (5) where labor market information can be found, such as in the Wisconsin Career Information System (WCIS) and local, state, and national sources; and (6) how counselors and others can use labor market information. Twelve sample cases are used in the last chapter. The four appendices contain an annotated guide to using the WCIS for occupational and educational information, a developmental guidance model, a glossary of employment information terms, and an annotated guide to using periodical labor market information publications. (CML)

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Using Labor Market Information for Career Decision Making

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Wisconsin Career Information System

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Using Labor Market Information for Career Decision Making

A Handbook for Career Information Providers

published by
Wisconsin Career Information System

by
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1987

Portions of this work have been edited from the publication
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written by
H. B. Gelatt and Albert T. Tokuno

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DEDICATION

This handbook is dedicated to the memory of Jerome Henning. Jerry was a staunch supporter of career guidance at all levels of education. His dedication as a school counselor and as a Department of Public Instruction consultant for career guidance was well known among colleagues in Wisconsin and nationally. He was instrumental in initiating the development of this book and provided considerable input and ideas which were included. As chairperson of the Policy Advisory Council of the Wisconsin Career Information System and as an active leader in professional guidance and career education associations, Jerry's enthusiasm, friendly smile and winning attitude touched many of our lives. While Jerry is no longer with us, we have his ideas and his spirit. With this spirit and idealism we publish this handbook for counselors and career advisors in his memory.

Introduction 1

"Career is a journey, not a destination"

Ask not "What do you want to be when you grow up?" but "What do you want to be while growing up?" Life and career are both a process. We are always "growing up;" we are always involved in a career process. Ziggy reminds us of that when he says:

> "Don't take life too seriously; we're here today and here tomorrow."[1]

The notion of "career as process" is basic to reading this handbook. A career is not something an individual achieves, but something one lives every day. The problem with asking what an individual wants to be when one grows up is that it is a focus only on the outcome. If the focus is only on the goal of reaching the top of the career ladder, an individual may get there and then ask, "Is this all there is?" George Bernard Shaw once said, "The only thing worse than not getting what you want is getting it."

This handbook will focus on the process of career decision making. When reading *Using Labor Market Information for Career Decision Making*, you should put the accent on **Using**. Labor market information is a tool. Decision making is a tool. The **process** of using these tools wisely is the theme of this handbook.

Using this process wisely will help individuals avoid being trapped by their decisions or misled by information while growing up. Successful career counselors will help others see that labor market and decision making information are tools to be used in the continuous process of career development and growth.

The persons who help others in the process of gathering, interpreting, understanding, and applying information to the process of making career decisions are the target audience of this handbook. Obviously, this includes counselors at all levels and career education specialists, but this handbook is also directed at those individuals who may be viewed as part of the career development arena. These people include teachers in many subject areas, librarians who order resources, set up displays, and help students find information, and administrators at all levels who work with advisory committees, plan career days or supervise career projects. Job placement specialists, vocational assessment personnel, job developers, and parents are also likely users. Many people are involved in using labor market information for career counseling.

USING THE HANDBOOK

This handbook uses the term "counselor" as "the helper" to represent counselors, career development specialists, teachers, and others who assist students and clients in career exploration or decision making. It uses the term "client" to represent the individual assisted by the counselor. Many people help others in using labor market information. This handbook is intended to be used by anyone who provides assistance in any setting: schools, colleges, government agencies, and other organizations.

People seeking assistance, "clients," may know nothing about the world of work. They may have no ideas about "what they want to be when they grow up." Others may have worked for many years in many jobs and are already grown up. This handbook is intended for either

[1] Ziggy, from comic strip by Tom Wilson.

situation. Any counselor working with clients needs labor market information in career decision making. To aid the process this handbook is divided into seven parts:

1. Introduction
2. Career Decision Making
3. What is Labor Market Information and How to Use It
4. Why Use Labor Market Information?
5. Where to Find Labor Market Information
6. Using What You Know
7. Appendices

The primary references used with this guide are the Wisconsin Career Information System products which include the *Occupations Handbook*, *Occupations Digest*, *Education Handbook*, *PREP*, and the computer based components such as *Career Scan*, *School Scan*, and *MicroSkills*. Additional local, state and national references are listed throughout the handbook.

Labor market information should be "counselor friendly" to be successful. That is, it should help counselors provide the best possible guidance with the resources available. Thus, a computer-assisted career guidance system, such as the Wisconsin Career Information System, is a valuable resource for some counselors. Other counselors may have an abundance of counseling time in which they can help clients use labor market information. Others may have limited client counseling time and find that the WCIS *Occupations Handbook* provides an efficient source of information. You can adapt this handbook to the kind of client counseling time, and resources you have.

Thus, labor market information resources are ready. The handbook for *Using Labor Market Information for Career Decision Making* is ready. Now it is up to you. Are you ready?

DEVELOPMENTAL GUIDANCE

Developmental Guidance is a model program designed for K-12 schools. It was developed by the Department of Public Instruction and is currently being implemented throughout the state. Labor market information is an important resource in implementing Developmental Guidance.

In viewing its relationship to labor market information, note the scope of the Developmental Guidance program covers all the guidance and career development needs of students K-12. Labor market information is but one facet of the information and resources used throughout the program. *Appendix B* contains a brief description of Developmental Guidance. It also contains a list of grade level competencies that can be addressed by using labor market information for career decision making. Persons working in career development and career guidance at the elementary and secondary level should review the materials in *Appendix B*. Others may wish to review it for general guidance competencies that may be useful at the postsecondary and adult level.

Career Decision Making: Ready, Aim, Hire

2

"Our decisions are only as good as our information"

One example of career decision making is illustrated by Linus:

> "I've decided to become a polled Hereford rancher. I'm writing to the Agriculture Department because I think if you belong to 4-H you're entitled to all the cows you need to get started."[2]

Linus's "case" illustrates the need for having good labor market information to make good career decisions. It also illustrates the fact that many clients already have information that is not very good.

The realities of everyday career choices suggest that there is a need to be filled. We've already heard Linus choose his career; now listen to Hobart Foote, an auto plant utility man, interviewed by Studs Terkel.

> "I'm from Alabama, my wife and kids are Hoosiers. I was gonna work for a few years and buy a new car and head back south. Well, I met the wife now and that kinda changes my plans.
>
> "I might've been working in some small factory down south or I might have gone to Detroit where I worked before. Or else I mighta stuck on a farm somewhere, just grubbing off a farm somewhere. You never know what you woulda did. You can't plan too far in advance, 'cause there's always a stumblin' block."[3]

[2] Linus, from Peanuts cartoon by Charles Schultz

[3] Hobart Foote, from *Working* (1974) Avon, by Studs Terkel, p. 233

Hobart makes no careful matching of his abilities and interests to job characteristics, no attempt to implement a self-concept, no sequential progression through the phases of a process of career choice. He not only fails to plan, he does not think planning is possible. Not all career counseling clients are like Linus or Hobart Foote, of course. Some do know how to plan but want help with a particular "stumblin' block". Others know they lack certain information and want help finding it. Yet some remain who do not know what they want.

Career counseling clients come in all "shapes and sizes". They also come with a wide assortment of facts, fantasies, fears, and future scenarios about career development. How can a career counselor help each client? Do short clients need special labor market information? Does it make a difference what facts or fears a client possesses? Would Linus find happiness as a rancher? Should Hobart return to the farm? This handbook will enable counselors to better answer these kinds of questions.

Counselors also come in different "shapes and sizes". There are at least two kinds of career counselors. There are those who place a high value on facts, logic, and systematic approaches. "Just give me the facts, Ma'am." And there are those who highly value intuition, deeper understanding, and long-range thinking. "What's the reason behind these facts?" This handbook is written for both types of counselors.

Part of this handbook is about labor market information. "The facts, Ma'am." Another part is about the process of career decision making. "The reason for having and using these facts."

When using labor market information in career decision making, you can't separate them into convenient chapters. In career choosing and career counseling, they're all mixed together. The "facts type" counselor, interested in the practical, sensible, objective approach might prefer to start with information. The "reasons type" counselor, interested in the intuitive, conceptual, subjective approach might like to start with process.

Since the handbook is written for both types but can't be written both ways, it's up to you to adapt accordingly. Always remember that when collecting labor market information and using it in career decision making ...

- there are different kinds of clients,
- there are different kinds of counselors,
- and, you can't separate the information from the person or the process.

SUCCESSFUL CAREER COUNSELING

> "Information is a curious thing; it doesn't work unless you do."

Getting ready, taking aim, and being hired is the logical, obvious sequence in the process of career choice. However, we know that clients do not always follow this sequence and don't all do it at the same pace or with the same care. Have you ever known a client who went "ready – hire – aim"? Or, do you know the one who always goes "ready – aim – aim – aim..."? Have you ever counseled a Linus or Hobart Foote?

Adequate preparation and careful aiming are more likely to lead to satisfactory hiring. But some clients want and need a "quick job solution". They do not have much time for readiness and aiming. Other clients are interested in careful researching, planning, and integrating career counseling. Still others lack the career maturity to make decisions or even internalize the necessary information to formulate a decision. Regardless of how logical or how rapidly clients go through the process, they will all use information.

The role of the counselor is to help the client use the appropriate process and use information wisely. How is this done?

Recent studies of career and vocational counseling have failed to find different effects for different theoretical treatments. That is, you can not prove that one theory is better than another.

However, the research does suggest that there are four elements common to a variety of theories and treatments used successfully by counselors. These four elements are[4]:

1. *Providing the client with social support.*
2. *Giving pertinent information about alternative choices.*
3. *Helping the client to clarify personal objectives and potentials.*
4. *Encouraging the client to develop a system to organize information in relation to available alternative choices.*

All of these elements are typical components of the methods used not only by successful career counselors, but also by marital counselors, health counselors, and other counselors who help people make decisions.

The first element, providing the client with social support, is the basic ingredient in any successful helping relationship. Its importance should never be underestimated. It is a basic tool and an essential skill of every counselor. "Don't leave home without it."

Users of this handbook should always keep in mind the importance of the client's need for support. Clients can learn to use both the counselor and other people in building a continuous support network.

The other three elements of successful counseling should remind career counselors that giving information (element #2) is not enough. Helping the client see the relationship of information to personal objectives (element #3) and encouraging the client to learn how to organize the information and objectives in a manner that will lead to an appropriate choice (element #4), are necessary to complete the decision counseling cycle. It should be noted that not all people involved in career development and career counseling will be able to carry out all four elements.

Career counseling involves **information**—both labor market information and other information. It also involves **people**—the counselor, the client, and other people for support and

[4] Holland. J. I., Magoon, T. M. and Spokane, A. R. "Counseling Psychology: Career Interventions, Research, and Theory" *Annual Review of Psychology* 1981. Vol. 32, p. 285.

knowledge. And it involves **process**—deciding to do something.

Information: Essentially, there are two kinds of career information:

1) *Inside Information*: This information is inside the decision maker. It reveals goals, values, interests, abilities, and experience of the decision maker.
2) *Outside Information*: This information informs the decision maker about the world of work: occupational options, job information, geographic, economic, and social conditions.

People: While the client must make the final decision, others have significant influence on this decision. They include the career counselor, family, and friends of the client.

Process: The process of deciding is an intellectual and psychological sequence of activities. It can be divided into three phases:

1) *Acquire*: Collect information about self and environment.
2) *Analyze*: Explore the relationship of this information with personal values, objectives,and personal situation.
3) *Act*: Decide what to do and do it!

Information is important, even crucial, but people also play a significant role in choosing a career. Clients, counselors, and other people in the life of the client can and do influence the information, how it is acquired, and how it is **analyzed**. Other people even influence how a client **acts**.

But the **process** of deciding may be most important of all. All three phases of the process (acquire, analyze, and act) involve information and people. It is important for a client to learn to acquire, analyze, and act on information. That determines not only how well he/she makes one choice, but also how well he/she can make future choices. Providing relevant labor market information is necessary. **Helping a client learn how to collect, process and apply future information for future decisions is the goal of effective career counseling.**

If we put together the three phases of the process of career choosing and the last three elements of the process of career counseling, it would look like this:

The Process of Career Counseling

Acquire: Giving pertinent information

Analyze: Clarifying personal objectives and potential

Act: Organizing information into a choice

Effective counselors will help clients move thoughtfully through all phases of the process of choosing a career or getting a job. Some clients may be tempted to skip or rush the analyzing phase. Some counselors may be tempted to let them.

Situational circumstances — sometimes controllable, sometimes not — often determine how a person will use the deciding process. One counseling theory, "accident theory", stresses the importance of chance as a determinant of personal opportunities for choice. Luck and fortune are factors that operate directly or indirectly in every individual's life. The degree to which they operate as determinants or constraints in career decision making, however, varies in each individual case. **The goal of wise decision making is to increase the decision maker's control over his or her choices and outcomes.**

There is more than one good way to decide. There are many ways to use labor market information; situational circumstances often determine which way is best. A skillful decision maker will know the "complete, wise process" of using labor market information in career decisions. And she/he will know when circumstances suggest that a less than complete process is appropriate. Giving clients labor market information, or even teaching them what it is and where to get it, is only part of career counseling. Teaching them **how to use it wisely** in their decisions is the bottom line.

CAREER DECISION MAKING FRAMEWORK

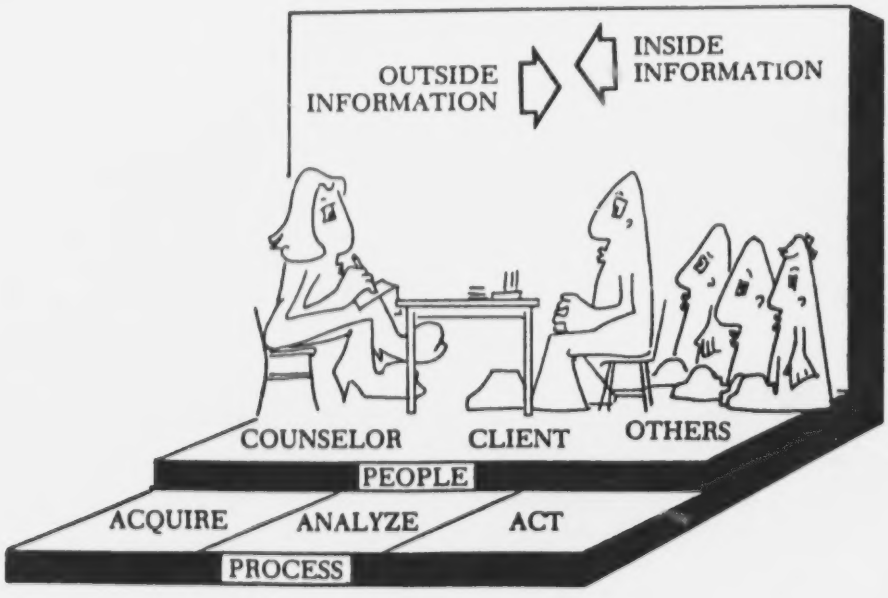
The following summary will provide a career counseling framework for using labor market information in career decision making:

Career decision making involves: information, people, and process.

1. The information is of two kinds:
   outside: about the environment (includes labor market information)
   inside: about the decision maker
2. The people involved are: client, counselor, and others.
3. The process has three phases:
   Acquire–(Ready)
   Analyze–(Aim)
   Act–(Hire!)

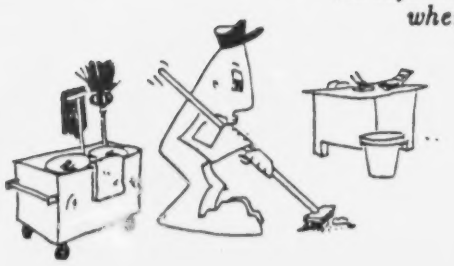
Four elements of successful counseling

Provide support
Give information
Clarify objectives
Develop a system of choice



What is Labor Market Information and How is It Used? 3

"... information about the market where labor occurs."



If you had to choose one of the following jobs, what job would you choose? (Numbers in ( ) refer to the **Occupations Handbook** of the Wisconsin Career Information System).

- Tile Setter (6414A)
- Coremaker (6861B)
- Operating Engineer (8312A)
- Cartographer (1644A)

You'd say you would like some information first. Well, perhaps what you need is some labor market information.

- What do workers do in these jobs?
- What skills or abilities do they need?
- How many job opportunities are there?
- Where are jobs located?
- What salary are workers paid?
- Where do I get training?

Put in its simplest terms, labor market information is information about the market where labor occurs—where labor skills are exchanged for wages. Information can be descriptive (qualitative) or statistical (quantitative). The key elements in the labor market are the workers (labor resources) and jobs (employment opportunities).

Labor market information may be tied to a specific geographical area, or, in the case of some occupations, may describe labor supply and demand at the statewide or national levels. Generally, when labor market information pertains to a geographical area, it is to a labor market area—that is, an area within which workers may change jobs without changing residence.

The following types of information are included in labor market information:

- Occupational Descriptions
- Wages, Hours, and Fringe Benefits
  - Local
  - Wisconsin
  - National
- Employment Trends and Outlook
  - Local
  - Wisconsin
  - National
- Method of Entry, Qualifications
- Advancement Opportunities
- Educational/Training Programs
- Future Impact of Technology
- Military Training and Employment
- Type of Industry or Business
- Educational Program Classification Systems
- Occupational Classification Systems Based on Similarities in:
  - Work Performed
  - Interests
- Occupational Characteristics
  - Aptitudes
  - Industry Designation
  - Environmental Conditions
  - General Educational Development (GED)
  - Reasoning
  - Mathematics
  - Language
  - Physical Demands
  - Specific Vocational Preparation (SVP)
  - Temperaments
  - Work Fields (Work Methods)
  - Worker Functions (Data–People–Things)

OCCUPATIONAL DESCRIPTIONS

What is it? The terms occupational description and job description are frequently used interchangeably even though the term *job description* technically refers to a narrow scope of tasks or duties. An *occupational description* typically includes characteristics of several closely related jobs.

Occupational descriptions are composed of summary statements that reflect the tasks performed in an occupation. What is done and how it is done is clarified. Occupational descriptions usually contain some or all of the following in summary form.

- What the worker does
- How the worker does it
- A description of the physical and mental activities required
- Job duties by industry, type or size of employer, and size of firm
- What they produce or accomplish
- The hazards or environmental conditions that are present
- The impact of technology on the work tasks
- The working relationship to other people
- The degree of specialization and responsibility
- The tools, machines, and materials used
- The alternate job titles used in some industries

How is it used? Occupational descriptions contain information that allows decision makers to visualize the work situation realistically, thus increasing the chances of a better choice when selecting an occupation.

The occupational descriptions can also help those considering working in a general field to narrow their choice to a more specific area, then choose among jobs within that area.

The following is an occupational description from the Wisconsin Career Information System (WCIS). How many of the components of an occupational description can you identify?

Occupational Description (Operating Engineers 8312A)

Operating engineers run many of the heavy machines used in building projects. With bulldozers, scrapers, and steam shovels, they dig foundations for structures and make roadbeds. They use cranes and derricks to erect steel beams or destroy buildings. Also, they may set up and maintain portable generators, boilers, pumps and compressors. Some machines are simple to run, but many are difficult. Some machines are simple to run, but many are difficult. Operators run the machines by moving lever, handwheel, and pedal controls. Often, all these controls must be moved at the same time. They also control attachments like buckets, blades, and swing booms. Operating engineers must handle these large, powerful machines with skill to avoid damaging property or injuring other workers.

Engineers also maintain their machines to keep them running well. Operating engineers may work more or less than 40 hours per week, depending on the season. Running the machines can be tiring.

Most operating engineers work for private construction firms.

ADVANTAGES/DISADVANTAGES CITED BY WORKERS

Operating engineers enjoy working outdoors. Job security is good due to the demand for their skills. They dislike the lack of steady, year-round work. Working in cold weather is another disadvantage.

RELATED TITLE

Heavy Equipment Operator

WAGES, HOURS, AND FRINGE BENEFITS

What is it? The terms "wages," "salary," or "earnings" are often used interchangeably. They are stated in hourly, daily, weekly, monthly, and annual terms. The dollar figure used in stating a wage rate usually does not include fringe benefits, such as medical insurance, sick leave, and paid vacations, which, if available, are listed separately. Normal work week hours, usual work schedule (days of the week), shift work, and overtime pay are also covered.

Wage information is useful only when the relevant factors associated with a particular wage rate are known. For example, the amount

of experience or training needed to qualify for a given salary rate would have to be known for the information to have value.

How it is used: The earning potential for an occupation is a prime consideration for many in choosing an occupation. However, the type of wage data required will vary, depending on the decision being made at the time. For example, a person inquiring about a particular job opening would want accurate information regarding the current wages being paid. On the other hand, someone involved in long-range career planning and studying several occupations would probably be more interested in the general earnings potential for each occupation or the relative levels of earnings between occupations.

Salary data for operating engineers (8312A) is presented below. Does it provide the essential information?

National Salary Range: $11.00 to $18.00 average per hour

This range is based on union wages in urban areas. Wages vary with type of equipment operated.

Salary Information in Wisconsin

Starting Salary: $5.50 to $9.00 per hour
Normal Salary Range: $8.00 to $16.00 per hour

Salaries will vary according to the type of machine operated. Operating engineers are usually union members, so they receive good fringe benefits. Apprentices start at about half the union pay scale. Layoffs do occur, so hourly earnings may not indicate the amount of annual earnings.

EMPLOYMENT TRENDS AND OUTLOOK

What is it? Employment trend data indicate past and current increase or decrease in employment in an occupation or industry. Employment outlook is an estimate of future employment. Underlying reasons for changes in employment trends and outlook are explained in the outlook sections of the Wisconsin Career Information System. Variations in supply and/or demand for an occupation in one or more industries is also included.

How is it used? Current employment trend and outlook data can be important to career decisions. Popular perceptions of the outlook for any given occupation may be outdated. That is, there may have been a surplus of job seekers for a particular occupation. That may no longer be true although the general public is unaware of any change in the supply or demand for workers. Investigation of current labor market information would correct misconceptions.

Outlook information is described below. Would it provide a clear picture of what is happening in this occupation?

Trends and Outlook (Operating Engineers 8312A)

Overall National Outlook: Fair

Increased construction of factories and other buildings, plus highway maintenance, will create more jobs unless prolonged recessions occur.

Employment in Wisconsin
Number Employed in 1980: 5,790
Number Expected to be Employed in 1990: 6,450
Expected Openings 1980–1990: 2,000

Current Outlook: Limited

Long Range Outlook: Current outlook will improve

This is a medium-sized occupation in Wisconsin. Jobs are limited in many areas of the state. Experienced persons will have the best chances for employment. Job opportunities will fluctuate as economic conditions affect construction activity. During economic downturns, there usually are more jobs available in commercial construction and highway repair then in home building.

Long-range predictions are based on current social and economic trends. These could change.

Highway revenues, state spending for major construction projects, and transportation costs determine the need for workers in this occupation. Interest rates also affect new construction projects, and in turn, job opportunities. Federal funding for highways and bridges also affects job outlook.

METHOD OF ENTRY/QUALIFICATIONS

What is it? This section includes information regarding employer hiring requirements, as well as the education and training necessary to

compete for jobs in an occupation. Specific information consists of items such as experience, education, physical requirements, and state licensing or certification. Personal interests and aptitudes important for success on the job are also included. Recommended high school courses, part-time and summer employment, on-the-job training, related military training, union apprenticeship, and hobbies are some of the more important items listed under training and educational requirements.

How is it used? This type of information is vital in making plans to prepare for employment in an occupation. Long-range planning must take into consideration any lengthy training or educational requirements for a job. Experience, hobbies, interests, and aptitudes can also be valuable clues to whether a person has previously acquired skills that can be transferred to an occupation.

A method of entry description follows. What are the criteria for entry into this occupation?

Method of Entry (Operating Engineers 8213A)

Operating engineers begin as apprentices. The Operating Engineer Apprenticeship Committee has a training area in Coloma, Wisconsin. Apprentices must be high school graduates, take an aptitude test and interview with the apprenticeship committee.

Experience in construction or in running heavy machines is helpful.

Some vocational schools offer programs which may improve changes for finding jobs. Few employers will hire untrained help because of the risk of damage to equipment or injury to workers caused by poor handling of machines.

Most employers hire from eligibility lists. Others may advertise in newspapers, hire walk-ins, or promote from within the company.

ADVANCEMENT OPPORTUNITIES

What is it? This type of information includes description of advancement and promotional opportunities in a field. It tells of jobs from which and into which workers may be promoted, the difficulties or uncertainties of promotion, and the rate of promotion. Opportunities for job improvement without promotion, such as higher pay, wider span of authority, self-employment, title or rank, professional standing, or relocation for more pay or prestige, are covered. Requirements for promotion, such as a willingness to move, advanced degrees, or years of service, as well as occupations to which workers may transfer, are also discussed.

How is it used? This information is intended to provide a realistic look at promotional opportunities and job improvement potential in an occupation. It can help career planners eliminate misconceptions about jobs. For example, some jobs considered to be "dead end" jobs can, in fact, be stepping stones to better jobs. Skill transferability is also an important concept, both within an occupational area and between occupational areas.

What can you learn about advancement opportunities from the description presented below?

Advancement Opportunities (Operating Engineers 8312A)

Advancement is limited for operating engineers. They may become supervisors but this may not bring higher wages. Some start their own construction firms.

EDUCATIONAL AND TRAINING PROGRAMS

What is it? This information provides descriptions of programs of study, and the locations of institutions which offer them. Some include a short description of the education/training program (subject matter, length of course, prerequisites (if any), the objectives of the course, and a description of the institution).

How is it used? Information about education and training programs tell whether particular courses exist locally. The length of time required to complete a course is also important. Course prerequisites should be considered in planning an educational program.

Educational information is presented below. What additional sources would you recommend a person use once they have looked at this?

Educational and Training Programs (Operating Engineers 8312A)

For vocational programs, see EDUCATION HANDBOOK: 380 Heavy Equipment Technology

Description of Program:

Heavy equipment technology programs prepare mechanics to work on construction equipment, such as bulldozers and earth movers. They maintain and repair heavy diesel equipment.

Courses:

Course work could include diesel technology, related machine shop, industrial hydraulics and pneumatics, related welding, applied mathematics, and applied science.

Schools Offering Program: (Exact program description, courses, and/or title may differ for these schools.)

26 Wisconsin Operating Engineers – Coloma
292 Gogebic Community College – Ironwood, MI

FUTURE IMPACT OF TECHNOLOGY

What is it? Technology is rapidly changing the world of work. Information about the effects of specific technologies on jobs inlucdes computerized lasers, fiber optics, and biotechnical engineering. Changes in tasks and skill level requirements are usually included as are changing responsibilities.

How is it used? Technological information is valuable in determining whether an occupation will change significantly because of new technologies. The advantages and disadvantages of these changes can then be considered in career decisions.

The high technology information from Wisconsin Career Information System (WCIS) is found in the 600 section of the OCCUPATIONS HANDBOOK. If a specific occupation is significantly affected, a reference to that section may be included in the OCCUPATIONS HANDBOOK description. For example, 8312A Operating Engineers is referenced to the "laser technology" area (640) for "industry" (642).

MILITARY TRAINING AND EMPLOYMENT

What is it? Military labor market information lists military occupations, the education required when enlisting, the training provided and the branch of the armed services employing workers. Information about military occupations also identifies civilian counterparts. Gender restrictions are indicated for combat- related jobs. Required scores from the Armed Services Vocational Aptitude Battery (ASVAB) are listed for each military occupation.

The armed services are a significant trainer and employer of young adults. Thus, civilian labor market information alone does not provide a comprehensive base for making career decisions. It is important to include military training and career information especially about occupational areas with civilian counterpart jobs. Many young people need to know about military opportunities for career training and employment.

How is it used? Military information is presented below as it appears in the Occupational Description for Operating Engineers in (8312A).

MILITARY OCCUPATION NUMBER 299
Construction Equipment Operators

IMPORTANT: Actual work performed in the military may be somewhat different from work performed in civilian life, even for occupations with identical titles. Be sure to compare the military and civilian descriptions carefully.

SERVICES OFFERING OCCUPATION
Army, Navy, Air Force, Marine Corps

RANK
Enlisted

RELATED CIVILIAN TITLES:
8312A Operating Engineers

MILITARY OCCUPATIONAL DESCRIPTION

Tons of earth must be moved to build airfields, roads, and dams. Construction equipment operators use bulldozers, cranes, graders, and other heavy equipment used in military construction.

Construction equipment operators in the military perform some or all of the following duties:

Drive bulldozers, roadgraders, and other heavy equipment.

Lift and move steel and other heavy building materials using winches, cranes, and hoists.

Pave roads, using concrete or asphalt paving equipment.

Dig holes and trenches using power shovels.

Remove ice and snow from runways, roads, and other areas, using scrapers and snow blowers.

Construction equipment operators work outdoors in all kinds of weather conditions. They are subject to loud noises and vibrations.

DEMANDS, ATTRIBUTES

Normal color vision is required to identify colored flags and stakes

Helpful attributes include:

Interest in operating heavy construction equipment

Preference for working outdoors

TRAINING INFORMATION

IMPORTANT: Some military training and experience may not be accepted by civilian employers. Little information is available concerning this situation although problems in transferring training and experience have been noted in many occupations. Likewise, the military does not automatically accept civilian training and experience.

There are no special requirements for this occupation.

Job training consists of between 8 and 9 weeks of classroom instruction including practice operating construction equipment. Course content typically includes:

Operation of different types of construction equipment

Maintenance and repair of equipment

Further training occurs on the job and through advanced courses. The Army offers a certified apprenticeship program for this occupation.

OPPORTUNITIES/ADVANCEMENT

IMPORTANT: Because you are interested in a military occupation does not mean you are qualified. The military uses test scores (usually the ASVAB) and current manpower needs to determine placement in training. Further, unless guaranteed in writing, acceptance for and successful completion of training does not assure you will work in the occupation for which you trained. Be sure to discuss this situation with your recruiter.

The services have about 9500 construction equipment operators. On average, they need about 1820 new construction equipment operators each year. After job training, construction equipment operators work as members of construction teams under the direction of supervisors. They normally gain experience by operating one piece of equipment. With time, they have the opportunity to operate a variety of equipment. Construction equipment operators have the opportunity to become construction superintendents.

Civilian construction equipment operators work for building contractors, state highway agencies, and other large-scale construction firms. They perform duties similar to those performed by construction equipment operators in the military. Civilian construction equipment operators also may be known as operating engineers or heavy equipment operators.

ALTERNATIVE TITLES:

Operating Engineers; Heavy Equipment Operators

SAMPLE MILITARY TITLES

Army:	Heavy Construction Equipment Operator
Navy:	Equipment Operator, Third to First Class
Air Force:	Construction Equipment Operator
Marine Corps:	Engineer Equipment Operator

TYPE OF INDUSTRY OR BUSINESS

What is it? Each type of industry or business has a different working environment even though they may employ persons in similar occupations. For example, a truck driver who works for a moving and storage company will usually have to load and unload the trucks by hand whereas an over-the-road driver may not touch the freight. Likewise, the skills and work of a plumber will vary considerably between residential construction and industry. The type of industry or business is a major influence on the specific job skills that are most frequently used, the environmental working conditions, pay and benefits, and numerous other conditions of employment.

How is it used? Knowing the industry or business in which an occupation is located provides significant information to the client. With this information on the operating conditions within that industry and the products they produce, the user can make more specific judgments.

EDUCATIONAL PROGRAM CLASSIFICATION SYSTEM

What is it? Educational programs are organized in a system called the **Classification of Instructional Programs.** This structure is often referred to as the CIP classification. It organizes all instructional programs at the high school and post high school levels into a common taxonomy.

How is it used? The Classification of Instructional Programs is used at state and national levels to collect data on enrollments and

graduates at various institutions and levels of education. Data on graduates is useful in career planning since this represents the primary source of labor supply for many occupations. Comparing supply data with demand forecasts will enable a person to predict the likelihood of employment in a specific area of training.

OCCUPATIONAL CLASSIFICATION SYSTEMS

What is it? Occupational classification systems use a variety of factors such as tasks performed, skill level required, worker interests, training requirements, the industries where work is performed, and other characteristics. Occupational differences create the base for the classification system.

How is it used? All systems use a structured methodology to assign a classification code to an occupation or program. This systematic process is referred to as job analysis, industry analysis, or program analysis, depending upon the type of classification system being developed. These coding characteristics can be used to relate one classification system to another or to match the characteristics of an individual with an occupation or program. Classification systems make it possible to draw comparisons between individual occupations and groups of occupations. Systems that group occupations according to similar types of work performed are useful in identifying skills that are transferable from one occupation to another. Other systems, which group occupations by instructional program areas, make it possible to link vocational and educational programs to specific occupational training needs. A system in which interests are the basis for classification can be used by those who express an interest in certain kinds of activities, even though they may have little work experience.

Some of the most commonly used occupational classification systems are listed below.

1. **The Standard Occupational Classification – SOC**
2. **The Dictionary of Occupational Titles**, Fourth Edition – **DOT**
3. **The Standard Industrial Classification – SIC** (This classification system does not actually deal with occupations, but rather is used to categorize industries by their economic output. It is frequently referred to when presenting employment data by industry.)
4. **The Census population** (The Census organizes occupations using a classification system compatible with the Standard Occupational Classification System.)

OCCUPATIONAL CHARACTERISTICS

What is it? Occupational characteristics are the identifying and descriptive factors that are unique to a given occupation. The basis for most occupational coding is the Dictionary of Occupational Titles where over 12000 job titles are coded to twelve characteristic categories. The Standard Occupational Classification System aggregates these 12000 job titles into slightly over 700 occupational titles. The Census Population system is closely aligned with the Standard Occupational Classification System. The Standard Occupational Classification System is used for Wisconsin Career Information System (WCIS) and more recently, by the state and federal governments in collecting employment data.

How is it used? Characteristics are used in the Wisconsin Career Information System to describe an occupation in terms that are useful in several ways. Since they are expressed in common terms, they allow comparison between occupations. Thus, occupations that share some of the same or similar characteristics can be grouped together to produce lists that are useful in searching for occupations associated with an individual's transferable skills. That is, skills learned in one occupation or activity that may be used in another.

Individuals may compare their own skills, knowledge, interests, and abilities with those called for by occupations they have an interest in, thus improving chances for a better career choice. For example, the physical demands of an occupation can be an important consideration not only for persons who have a physical impairment, but also for anyone who is unwilling or unable to engage in certain physical activities, such as lifting heavy objects continuously.

Similarly, the length of training time required for an occupation might be a determining

factor for someone who needs an immediate income to support a family.

The following is a list of coding characteristics from the Wisconsin Career Information System (WCIS) occupation Operating Engineer (8312A). What do they tell you about the occupation? How can you use them in counseling a person about a career?

---

1 INTERESTS
6 Work with machines or equipment
7 Work primarily with tools or objects
8 Follow a set routine or one best way of doing things
12 Evaluate people or products and make decisions
13 Structured: working on clearly defined tasks
15 Problem-Solving: Making decisions, often involving pressure

16 ABILITIES
18 Numerical: Solve simple mathematical problems quickly and accurately
20 Spatial: Understand the relationship of solid objects to those on a flat plane
21 Form Perception: Make visual comparisons between the shapes and details
23 Coordination: Work with your hands, fingers, or feet easily, quickly, and accurately
24 Motor Coordination: Coordinate the movements of your eyes, fingers, and hands while working quickly and accurately
26 Manual Dexterity: Move your hands easily and skillfully as you work with objects
27 Eye-Hand-Foot Coordination: Move hands and feet in a coordinated manner as you react correctly to what you see

30 PHYSICAL EFFORT
33 Much lifting or physical exertion
34 Lift up to 50 lbs., and carry up to 25 lbs.
36 Climb, balance, stoop, kneel, crouch, and crawl
37 Reach, handle, and touch
39 See clearly
41 Sit most of the time

50 OFFICE OF EDUCATION (OE) OCCUPATIONAL CLUSTERS
54 Construction

70 DICTIONARY OF OCCUPATIONAL TITLES (DOT) OCCUPATIONAL FAMILIES
78 Structural Work Occupations

80 DATA, PEOPLE, THINGS, IDEAS, INTERESTS
81 Data: Working with numbers or facts
83 Things: Operating machines, using tools, or materials
84 Ideas: Using ideas or knowledge

100 STANDARD OCCUPATIONAL CLASSIFICATION (SOC) DIVISIONS
120 Transportation and material moving occupations

166 EDUCATION
168 High school diploma, or G.E.D.
169 Vocational Training

176 YEARS OF POST-HIGH SCHOOL EDUCATION AND TRAINING
177 Less than four years of training beyond high school

180 OUT-OF-SCHOOL TRAINING
181 Apprenticeship: A formal, paid program to learn a craft or trade

190 OTHER QUALIFICATIONS REQUIRED
194 Union membership

199 WAGES AND SALARY
200 Minimum wage or more per hour
201 $11,000 or more a year (over $5.29 per hour)
202 $18,000 or more a year (over $8.65 per hour)
203 $25,000 or more a year (over $12.00 per hour)

210 URBAN OR RURAL JOB SETTINGS
211 Urban: Metropolitan areas and suburbs
212 Rural: Small towns and country areas

213 TRAVEL
215 Local travel and/or working at different job sites daily, weekly, or monthly

226 WORKING CONDITIONS
227 Mostly outside

230 EXPOSURE TO UNPLEASANT WORKING CONDITIONS
234 Noise and vibrations
235 Hazardous conditions
237 Work week normal
240 Overtime normal
246 Overtime work often seasonal

270 GUIDE FOR OCCUPATIONAL EXPLORATION (GOE) WORK AREAS
275 Mechanical

300 SCHOOL SUBJECTS OR INTERESTS
307 Industrial Arts: Drafting, graphic arts, metal working, mechanics, construction, woodworking, electricity or electronics

330 FIELD
336 Industrial Production: Foundry work, machining, printing, and assembly
338 Scientific, Technical, Mechanical and Repair: Mathematics, biological, chemical, and physical

sciences, engineering and technology, and mechanics and repair

340 READING, WRITING, AND SPEAKING ABILITIES

341 READING LEVELS

343 Reading Level 2 – Read simply written material and learn job terms for: recipes, invoices, labels, or rules

347 WRITING LEVELS

348 Writing Level 1 – Little or no writing

353 SPEAKING LEVELS

354 Speaking Level 1 – Speak simple sentences for questions and following instructions

370 OHIO VOCATIONAL INTEREST SURVEY (OVIS) SCALES

372 Machine work

500 TYPE OF OCCUPATIONAL DESCRIPTIONS

503 Wisconsin and national information

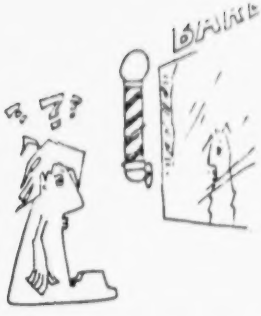
575 HOLLAND THEMES

580 Realistic (primary)

583 Conventional (secondary)

590 Enterprising (tertiary)

Why Use Labor Market Information? 4



"Never ask a barber whether you need a haircut"

Labor market information provides the user with a career decision making tool. Using labor market information makes an emotional process more rational. Since labor market information is factual, it is a good place for career decision making to start.

Labor market information provides the user with career decision making tools. Labor market information is factual and can thus make an emotional process more rational. While individuals have career fantasies, labor market information is objective. Job data may give hope or cause discouragement, but it also balances the decision making process. Even if a client pursues an unlikely goal, it will be done with greater understanding of the occupation.

In choosing among career options, an individual may need to compare similar kinds of information. Imagine that a person needing a job is told he/she could have any one of the following three jobs:

1) Cartographer – 1644A
2) Operating Engineer – 8312A
3) Coremaker – 6861B

The individual might well begin by comparing the three occupational descriptions. Supposing all looked equally appealing, he or she would perhaps compare salary ranges next. On the other hand, if the person had recently been phased out of an obsolete job, employment trends might instead be the prime consideration in choosing a new position.

Thus, different individuals, given the same options, might very well set different criteria in deciding among the positions. How would you rank the following types of labor market information in choosing among the three jobs?

- ☐ Job Description
- ☐ Preparation and Training Required
- ☐ Occupational Characteristics
- ☐ Wages, Hours, Benefits
- ☐ Current Openings for Jobs
- ☐ Employment Trends

Labor market information gives direction to the decision maker, but this direction is commonly influenced by the person's situation, background, and values. Thus, effective career counseling requires that the counselor know as much as possible about the client. If counselors and clients pool their insights about labor market information and the decision maker, a wise career decision could result.

Good career counseling will help clients see the relationship between factual information and the beholder's values, beliefs, previous knowledge, and experience. Information that is deemed valuable depends on these characteristics. If a client changes any of these characteristics, the value of the information would change too.

Compare the following samples of dispassionate labor market information.

---

1) From *WCIS OCCUPATION HANDBOOK* - **News Vendor** (Occupation 4365)

News vendors sell newspapers. Some sell newspapers to customers on the street or from newspaper stands. Others sell and deliver newspapers door-to-door along an assigned route or in a neighborhood.

These workers may walk or ride a bicycle to deliver newspapers. They collect payments for newspapers and return change. Some also keep records of customer accounts. Many of these jobs require early morning, evening, or night work. They also may require weekend and holiday work.

Work locations include newspaper companies, newspaper stands, and self-employment.

2) *From Career and Labor Market information: Key to Individual Decision Making*, a tongue-in-cheek job vignette by Edward Gross, page 9.

"Key persons in the role set of a newspaper carrier include the following:

"**The customer.** Customers like to receive their newspapers in a convenient place, unaffected by rain, snow, or wind. They can rarely tolerate a delay in delivery longer than ten minutes off one's usual time. All of them desire that the newspaper carrier shall stay off the grass, stay out of the flower gardens, and indeed, would prefer that he/she not step on the property at all. Should the newspaper carrier be bitten by the customer's dog, the customer is likely to blame the newspaper carrier for upsetting the dog.

"**Non-customers.** Other persons may also give the newspaper carrier trouble since they object to his/her taking shortcuts across their property. They also have dogs.

"**The superior.** This individual tries to maintain the fiction that the newspaper carrier is an independent business person. Therefore, he/she has periodic meetings in order to 'counsel' them in their business activities. His/her pep talks are frequent and must be endured.

"**Other carriers.** One occasionally encounters persons who carry newspapers for competing companies (or even of the same company) who attempt to take away one's subscribers."

Here is another example closer to home:

---

1) From **WCIS** – Counselors (Occupation 2400A).

Counselors help people deal with social and emotional problems. They interview, test, and counsel clients over a period of time.

Counselors usually specialize in one of two areas. School counselors help students with social and emotional problems. They may help students recognize their interests and abilities so they can decide on further education or training. College career planning and placement counselors help students decide on careers. They bring employers to their campuses so students can interview for jobs.

Counselors are employed in a variety of places, including public schools and colleges.

Counselors spend most of their time in office talking to clients and writing reports. They generally work 40-50 hours a week. They may occasionally work irregular hours.

2) Fill in your own emotional description of what it is like to be a school/college counselor, or a rehabilitation counselor, or whatever you are:

(What do you feel is left out of the WCIS description?)

BIAS AND BARRIERS

I am biased; labor market information is not! People are not neutral, dispassionate or unbiased; labor market information is. Fortunately, labor market information is not just impressions inside a client's head or heart. Accurate, reliable, relevant, qualitative, and quantitative labor market information does exist. It is also readily available to counselors and clients. This kind of labor market information, or the absence of it, can make a big difference in the success of career choices.

> **Adding this rich resource to the repertoire of a career counselor can contribute to increased counseling success. Objective, qualitative, and quantitative labor market information helps a client round out his/her knowledge about a career choice. It adds facts to impressions. It provides some information not otherwise available. It helps to counteract biased or inaccurate perceptions.**

You would not ask a car salesperson if you need a new car or a barber if you need a haircut. Career information given to you by some sources is, at best, subjective and one-sided. The catalog for "*Standard University,*" the brochure of the "*Honeymoon Hotel,*" and the career opportunity pamphlet distributed by "*Hi-tech Spectrics*" are similar in one way: they were all designed to promote themselves, not assist in counseling clients. They are more interested in promotion than in career decision making! They all provide useful career information for decision

making, but are insufficient, even misleading, if used alone.

What are some of the barriers that keep some counselors from using information about the labor market? "It's dull; it's out of date; it's irrelevant; its organisation is complicated; it doesn't motivate." Or, "I don't feel comfortable using it because I'm not that familiar with computers or printed documents." Frequently, the most serious limitations are the ones we impose on ourselves and our clients or the barriers clients impose on themselves. One of the best ways to overcome these barriers is to become more familiar with labor market information, and to use it.

EVERYONE HAS LABOR MARKET INFORMATION

Obviously, clients already have some labor market information. Everyone does. We read about jobs, have friends in various occupations, watch television where many careers can be seen, and use our own observations from direct experience. We collect information about what certain jobs are like when we do grocery shopping, attend a professional football game, go to a concert, travel in a plane, or have our cars repaired. This is qualitative information, more like impressions of the skills, aptitudes, interests, and training required in various jobs. We also get a feeling about how much we would enjoy doing such a job. We sometimes make evaluations from our impressions: "I could never do that;" "It would be impossible to get a job like that;" or "That job probably pays a lot of money."

These impressions are all useful types of labor market information for career decision making. However, they may be incomplete, sometimes inaccurate, and perhaps irrelevant. Labor market information impressions are influential in career decision making, but often at an unconscious level. They may not be explored wisely. These unconscious beliefs are part of every client's career decision making. Counselors should assist clients in learning how they affect decisions.

At this point, it is important to remind ourselves of the relationship between labor market information and all other information. For example, a client believes that he/she is not good with numbers. He/she may not look up certain occupations because of this belief. Labor market impressions such as observing the checkout clerks in grocery stores together with a self-assessment may lead the client to conclude that he/she cannot do the job of grocery store clerk. He/she may get a different impression reading the Wisconsin Career Information System job description for cashier-checker (4364B). It shows that cashiers need to be able to count, fill out forms, keep some records, and remember changes in prices. It requires relatively little actual math skill.

OCCUPATIONAL DESCRIPTION

Cashier/checkers figure the amount of a customer's purchase on a cash register. In some stores, they hold the products over a laser. The laser reads the Universal Product Code and enters the price in the cash register's computer. Cashiers receive payment for the purchases, make change, and give receipts. Cashiers fill out charge forms for credit card sales. They get managers to approve customer's checks.

Cashiers keep records of each sale so that accounts can be balanced at the end of the day. They often review price sheets to note changes. In some stores, they receive coupons and give credit for them. Sometimes they give trading stamps. Cashiers also handle customer complaints and returns or exchanges of merchandise. Often, they help bag or wrap purchases. When away from the cash register, they may mark prices, stock shelves, or set up displays.

Cashiers/checkers work in retail stores such as supermarkets, drug stores, and department stores.

Most cashiers work part-time or split shifts. Full-time cashiers work about 40 hours per week. They often work nights, and may have to work weekends and holidays. Most work is done while standing.

Another client knows about the cold weather and tornado threat in a certain geographic area. He also knows that his wife would never live there. Because of this "outside information" he rejects all labor market information related to that geographic area.

All information in career decision making is complicated by the interrelationships of values, beliefs, attitudes, biases, impressions, and other information. This creates an additional problem for the counselor because he/she may not know very much about the unique character of each client. When using labor market information in

career decision making, the counselor should always keep this in mind and attempt to discover more about clients' unknown personal factors.

INFORMATION VS. VALUES

Which is most important in career decision making–information or values? Which should career counselors deal with first? People are different because they have different values. People are also different because they have different information. People also might have different values if they had different information.

Your values and beliefs influence your information and experiences and how you evaluate it. But new information and experiences can change your beliefs and values.

- **Values determine the information that is important.**
- **Information influences values.**

So when we try to isolate labor market information in career decision making, we should always remember this interrelatedness.

> **Decision making can be a process of discovering goals as well as achieving them.**

GETTING YOUR LABOR TO MARKET

We have defined labor market information as information about the market where labor is exchanged for wages. It includes descriptive and statistical information about workers and jobs. We have shown how values and information cannot be separated. The reason for using labor market information in career decision making is to improve a client's chances of finding a job in the labor market that "pays off" in terms of wages and values.

Acquire	Giving pertinent information
Analyze	Clarifying personal objectives and potential
Act	Organizing information into a choice

The Process of Career Decision Making Involves:

Phase I	**Acquire**	"Get Ready"	Collect
Phase II	**Analyze**	"Aim"	Clarify
Phase III	**Act**	"Hire"	Commit

The three phases are not precise or totally independent. It is helpful, however, to think of them as sequential in relation to the information.

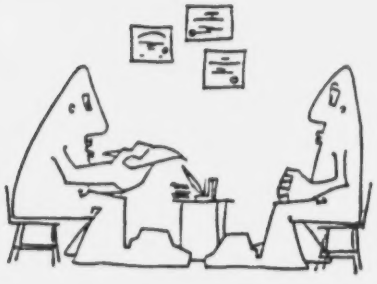
Phase I Collect it

Phase II Relate it to your situation

Phase III Use it to decide

In order to use labor market information, you need to have it, know how it relates to your situation, and be able to apply it to each choice. Therefore, the three phases of the process are repeated endlessly in career decision making.

Where to Find Labor Market Information 5



Labor market information is all around us. Each of us can readily think of labor market information sources such as the Wisconsin Career Information System, (specifically the occupation and education files and/or handbooks), the federal *Occupational Outlook Handbook*, and the *Wisconsin Occupational Projections to 1990*. While the Wisconsin Career Information System is a comprehensive source of local, state, and national data, many local information sources are readily available to supplement this source. First, look at the information in the Wisconsin Career Information System. Then look at sources such as the local newspapers, radio and T.V. news programs, magazines, government reports, and personal contacts in the community. Labor market information surrounds us every day as we talk about a new business, layoffs at a plant, a hot new service or a product that is sweeping the country, or technologies that alter the demand for products or services.

WISCONSIN CAREER INFORMATION SYSTEM

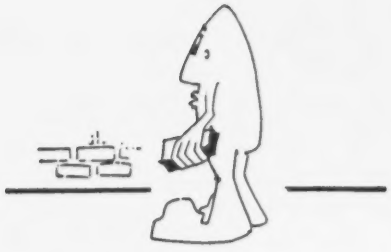
The Wisconsin Career Information System is a consortium of providers and users of occupational, educational, and other career resources. It operates on user fees paid by members and is housed at the Vocational Studies Center, School of Education, University of Wisconsin–Madison. It is recognized by the State of Wisconsin and its agencies as the primary deliverer of labor market information for schools and agencies in the state. WCIS gathers information from many sources. The data is analysed and re-ordered to create attractive, accessible career planning resources. Components of WCIS contain the following kinds of labor market information:

1. **Occupational Information**
   a. National information on over 700 related titles which encompass all work activities in U.S. society
   b. State information on approximately 450 titles including a detailed description, worker perceptions, method of entry, state outlook, regional outlook, salary, and sources for more information

2. **Education Information**
   a. Descriptions of 772 college and vocational programs
   b. Detailed information on 57 public and private colleges and universities in Wisconsin, 40 schools in nearby states, and 31 specialty colleges throughout the U.S.
   c. Detailed information on over 150 institutions offering vocational training in Wisconsin

3. **High Technology Information**
   a. General information on critical high technology areas

3. High Technology Information (cont'd)
   b. Specific information on affected work areas and skills necessary for people to prepare for technology
   c. Direct references to occupations expected to be most influenced
4. Other Information
   a. A detailed, 24-page newsprint description of financial aids programs for Wisconsin residents
   b. Descriptions of 650 items which directly relate to the world of education and work, and which can be used by professionals to aid instruction
5. Integrated Information
   a. The full-system microcomputer version contains over 1,500 occupational and educational characteristics which are available to users for search of the various data files.
   b. All occupational titles are presented within a structure relating each title to others in the system.
   c. Occupational titles are cross-referenced to appropriate college and vocational programs by name, and to high technology areas expected to have an effect upon them.
6. National Search Programs
   A search procedure to access over 1,400 universities and colleges in the U.S.



LOCAL SOURCES

Although local labor market information may be of the most useful for career decision making, most available published reports provide information at the state or national level. Thus, career counselors must find methods of obtaining local labor market information through local channels in addition to the usual state and federal sources.

As we have pointed out, the Wisconsin Career Information System is a fundamental source of national, state, and regional labor market information. To supplement this at the local level, counselors must find methods of interfacing with local sources. This interface will vary considerably from one area to another. Sources that have been used are listed below. Some will be used in any geographical area. It is hoped that the list will suggest other sources that the reader can find locally.

- Area labor market analysts at Job Service Offices may have information about local areas throughout the state.
- Employment counselors in Job Service offices are a valuable source of local labor market information.
- Annual planning information reports for local areas may provide some information.
- The Labor Market Bulletin for all major metropolitan areas gives employment data.
- Projections of Employment by Industry and Occupation for various metropolitan areas, groups of counties, or individual counties should be checked.
- Local newspapers, especially the business sections, often contain articles on new or expanding firms, firms going out of business, and local economic trends.
- Local Chambers of Commerce often maintain lists of employers classified by industry. They are also a source for future trends and new employment opportunities.
- Small Business Administration offices have information on the number and kinds of new businesses that have applied for assistance.

- Local branches of major companies often have community affairs or public relations representatives who have extensive information about their own companies.
- Local chapters of trade unions, professional organizations, and trade associations have employment data on occupations within their own fields.
- Business magazines, particularly those that focus on Wisconsin business, publish lists of the leading Wisconsin companies annually.
- JTPA Service Delivery Areas conduct labor market studies to establish the need for training programs. They often have staff who are very knowledgeable about the local labor market.
- Organizations, such as the Urban League, work for equal opportunity through training and employment programs, and gather information for their needs.
- Local vocational and technical institutions and four-year college placement centers are another potential source of local data.
- Economic reports published by financial institutions may be helpful.
- Local joint apprenticeship committees know the demand for new workers in apprenticeable trades.
- Special regional and area studies done by various organizations should be identified and examined.

There are numerous ways in which sources of local labor market information can be acquired through the development of relationships with local organizations. A few of the ways this might be accomplished are:

Develop a communications/information exchange "network" with other counselors. Include those who work with the Job Training Partnership Act (JTPA), Job Service Office, Chamber of Commerce, unions, private industry councils, economic development offices, local newspapers, and educational institutions.

Visit public agencies and private businesses to learn first hand about their needs. Try to establish working relationships with their personnel offices.

Help in organizing and staging a local "job fair" in which employers are invited to give presentations about career opportunities within their organizations.

Conduct phone or mail surveys to obtain information regarding projected job openings, applicant supply, training requirements, etc., directly from employers. Before doing this, check with the local Job Service Office and your JTPA Service Delivery Area to be sure it has not already been done. If possible, form a partnership with public or private organizations that have similar needs.

Promote the establishment of citizen advisory committees made up of representatives from both the public and private sectors, to help counseling departments better serve the community.

Establish and maintain an in-house reference library for labor market information, either within the office or, if that is not possible, at the district level.

Establish a job club in which individual job seekers form a group to assist each other in obtaining jobs.

STATE AND NATIONAL SOURCES

Sometimes the information provided through local sources and the Wisconsin Career Information System may not be enough to solve your problems. Where do you go, then? There are a large number of specialized state and national data sources available. Some of these are used to develop the information provided in the Wisconsin Career Information System. Others are unique information sources dealing with special user populations.

For example, information on women in the labor force can be found in a publication by that title published by the Wisconsin Department of Industry, Labor and Human Relations. Wisconsin data on the occupations of white male heads of households can be found in the Census of Population. To assist the counselor in identifying and locating some of these information sources, an annotated list follows. This list covers labor market information as well as other career counseling resources. The list is alphabetized

by the first significant word. The contents of each product or source is briefly described. The address for ordering these resources is included when it is available. Many state and federal publications are free; however, there is a charge for GPO (Government Printing Office) publications as there is for commercial publications. Cost information is given if known.

Wisconsin Sources

ABC's of LMI, an Introduction to Labor Market Concepts. 1983. This report is an introduction to labor market concepts. It describes how labor markets operate and provides information about labor markets. Available from Job Service Library, Wisconsin Department of Industry, Labor and Human Relations, PO Box 7944, Madison, WI 53707. Free.

American Indians in Wisconsin, 1980: Reference Tables. Bruce A. Christenson, Nancy J. Kanaski, David J. Landry, and Doris P. Slesinger. Population Series 80-4. September, 1985. Available from the Applied Population Laboratory, Department of Rural Sociology, University of Wisconsin–Extension, 1450 Linden Drive, Madison, WI 53706. $5.00.

Children of Migrant Agricultural Workers in Wisconsin. Eleanor Cautley, Doris P. Slesinger, and Pilar Parra. September, 1985. Available from the Applied Population Laboratory, Department of Rural Sociology, University of Wisconsin–Extension, 1450 Linden Drive, Madison, WI 53706. $5.00.

County Business Patterns, Wisconsin. U.S. Bureau of the Census. Employment by industry by county. Published annually. Available from the Government Bookstore, 517 East Wisconsin Avenue, Room 190, Milwaukee, WI 53403. $5.50.

County Commuting Patterns. A graphic display of commuting patterns to and from each county. Taken from 1980 Census of Population, 1984. Available from the Government Bookstore, 517 East Wisconsin Avenue, Room 190, Milwaukee, WI 53403. $4.50.

Education Handbook. Provided annually by the Wisconsin Career Information System. This handbook contains information on programs of study and the schools that offer them. Over 700 vocational and college programs are detailed. Information on Wisconsin's vocational schools and colleges is also presented along with descriptions of selected schools from adjoining states. This book provides a comprehensive source of information on education and training in Wisconsin and bordering states. Available to consortium members. Contact the Wisconsin Career Information System for fees and publication costs at 1025 West Johnson, 1078 Educational Sciences Building, Madison, WI 53706. (608) 263-2725.

Employment Review. A series of narrative and tabular summaries on employment and unemployment in specific areas, comparisons with past trends, labor demand and supply relationships, a report on training activities, and the outlook for each area. Available from local Job Service offices or the Job Service Library, Wisconsin Department of Industry, Labor and Human Relations, P.O. Box 7944, Madison, WI 53707. Free.

Hispanics in Wisconsin, 1980: A Chartbook. Elia Basurto, Doris P. Slesinger, and Eleanor Cautley. Population Series 80–5. December, 1985. Available from the Applied Population Laboratory, Department of Rural Sociology, University of Wisconsin–Extension, 1450 Linden Drive, Madison, WI 53706. $5.00.

How Labor Markets Operate. Charts and descriptions of the workings of the Labor Market. 1983. Available from the Job Service Library, Wisconsin Department of Industry, Labor and Human Relations, PO Box 7944, Madison, WI 53707. Free.

Kids'n School. An update on the demographics of children and their impact on our schools. Available from the Wisconsin State Data Center, Demographic Services Center, Department of Administration, 101 South Webster Street, 6th Floor, Madison, WI 53702. Free.

Labor Market Information, An Analysis. 1984. A brief description of how labor market statistics describe the labor force. Includes definition of key terms and concepts, and gives short list of Wisconsin LMI publications. Available from the Job Service Library, Wisconsin Department of Industry, Labor and Human Relations, PO Box 7944, Madison, WI 53707. Free.

Labor Market Information, An Annotated Directory of Publications. Department of Industry, Labor and Human Relations, Madison, Wisconsin. 1984. Available from the Job Service Library, Wisconsin Department of Industry, Labor and Human Relations, PO Box 7944, Madison, WI 53707. Free.

Labor Force Market Information in an Annotated Directory. Revised Annually. Wisconsin Department of Industry, Labor and Human Relations. Available from the Job Service Library, Wisconsin Department of Industry, Labor and Human Relations, PO Box 7944, Madison, WI 53707. Free.

LMI Glossary: Terms Used in Labor Market Analysis. 1983. This glossary includes the terms commonly used in labor market analysis and in published reports of statistics and labor market information. An alphabetical index is included. Available from the Job Service Library, Wisconsin Department of Industry, Labor and Human Relations, PO Box 7944, Madison, WI 53707. Free.

Occupations Digest. Prepared biannually by the Wisconsin Career Information System. The Occupations Digest includes descriptive information on 400 occupations and is written at the fifth grade level. This book may also be used with individuals who have a low reading level. It is intended as a career exploration resource. It is designed so that persons seeking more detailed information can refer to the Occupations Handbook, which uses the same occupation numbers and titles. Available to consortium members. Contact the Wisconsin Career Information System for fees and publication costs at 1025 West Johnson, 1078 Educational Sciences, Madison, WI 53706. (608) 263-2725.

Occupations Handbook. Prepared annually by the Wisconsin Career Information System. The Occupations Handbook covers over 800 occupational descriptions. Over 400 of these occupations are common to Wisconsin with 250 significant nationally. High technology occupations are also included. Data for this book is synthesized from state and national publications and labor market information data. The format is designed specifically for use in counseling and career development. Available to consortium members. Contact the Wisconsin Career Information System for fees and publication costs at 1025 West Johnson, 1078 Educational Sciences, Madison, WI 53706. (608) 263-2725.

Occupational Statistics Program. This is a series of OES program reports. OES surveys Wisconsin employers in selected industries to obtain current occupational categories of nonfarm wage and salary employees. This includes full and part-time employees in occupations for which they were trained. Estimates of employment by occupation within specific Standard Industrial Code groups will be used to develop an industrial-occupational matrix. This matrix will be the basis for projections of future occupational requirements. The surveys are conducted on a three-year cycle. Available from the Job Service Library, Wisconsin Department of Industry, Labor and Human Relations, P.O. Box 7944, Madison, WI 53707. Free.

Official Population Estimates. Final population estimates for all Wisconsin towns, incorporated villages, and cities as of January 1. Earliest edition, 1973. Latest edition, January, 1986. Published annually. Available from the Wisconsin Department of Administration Demographic Services Center, 101 South Webster, 6th Floor, Madison, WI 53703. (608) 266-1927. Free.

Planning Information for Employment, Training, and Industrial Development. 1979. Reports show historical development and possible future changes in the labor markets of the state and service delivery areas. Available from the Job Service Library, Wisconsin Department of Industry, Labor and Human Relations, PO Box 7944, Madison, WI 53707. Free.

Population Notes. Brief demographic reports issued periodically. The most current:

Wisconsin's Elderly Population 1970–1980. November, 1984. (Number 15)

American Indians in Wisconsin, 1980. April, 1985. (Number 16)

Wisconsin's Metropolitan Areas. November, 1985. (Number 17)

Available from the Wisconsin State Data Center, Demographic Services Center, Department of Administration, 101 South Webster Street, 6th Floor, Madison, WI 53702. Free.

Population Series. In-depth demographic reports published periodically. The most current:

Demographic Change in Wisconsin: Trends and Outlook. Jan, 1984. (80-1)

Demographic Characteristics of Wisconsin's Welfare Recipients. Jan, 1984. (80-2)

Poverty in Wisconsin. Feb, 1985. (80-3)

Available from the Wisconsin State Data Center, Demographic Services Center, Department of Administration, 101 South Webster Street, 6th Floor, Madison, WI 53702. $5.00 each.

PREP Handbook. Provided annually by the Wisconsin Career Information System. PREP

is a series of exercises to help individuals understand themselves in relation to the world of work. PREP can be used by a group or by an individual. Available to consortium members. Contact the Wisconsin Career Information System for fees and publication costs at 1025 West Johnson, 1078 Educational Sciences Building, Madison, WI 53706. (608) 263-2725.

Using Labor Market Information for Career Decision Making. This handbook is designed to provide a brief but comprehensive explanation of labor market information for career development and career decision making. It uses the Wisconsin Career Information System and other state and federal materials to emphasize and illustrate major points. Counselors, career development specialists, teachers, librarians, and anyone working with career development will find the book useful as a professional reference. Available to WCIS consortium members and others. Contact the Wisconsin Career Information System for fees and publication costs at 1025 West Johnson, 1078 Educational Sciences, Madison, WI 53706. (608)263-2725. Non-consortium members may purchase it for $10.00 from the Publications Unit, 964 Educational Sciences Building, 1025 West Johnson Street, Madison, WI 53706. (608) 263-4357.

Wisconsin Career Information System. Comprehensive occupational and education information system for career exploration, career decision making, and education planning. It is designed especially for Wisconsin. Through its printed materials and microcomputer software, it provides up-to-date educational and labor market information for making career decisions and conducting career counseling. The system provides analyzed data, structured and direct access to information, and numerous other resources for students, clients, and counselors. Available to consortium members. Contact the Wisconsin Career Information System for fees and publication costs at 1025 West Johnson, 1078 Educational Sciences Building, Madison, WI 53706. (608) 263-2725.

Wisconsin Developmental Guidance Programs. Wisconsin Department of Public Instruction, Madison, Wisconsin. 1985. Available from the Wisconsin Department of Public Instruction, Publication Sales, GEF III, 125 South Webster Street, PO Box 7841, Madison, WI 53707. (608) 266-1098. $5.00.

Wisconsin Employment and Economic Indicators. A publication of 30 indicators grouped by business cycle timing, denoting employment, business and economic activity, and demographic information. Contains a narrative report on the state of the Wisconsin economy, and either an information report on a segment of industry or a current statistical analysis. Contains tables and narratives on labor force, unemployment, employment, hours and earnings. Contains selected information on the U.S. Includes tables and graphs. Monthly publication. Available from the Job Service Library, Department of Industry, Labor, and Human Relations, PO Box 7944, Madison, WI 53707. Free.

Wisconsin Industry Projections to 1990: Employment Demand. This report looks at projected labor force and employment by industry by 1990. 1982. Available from the Job Service Library, Wisconsin Department of Industry, Labor and Human Relations, PO Box 7944, Madison, WI 53707. Free.

Wisconsin's Metropolitan Areas. Douglas L. Tangwall and Paul R. Voss. Population Notes, No. 17. November, 1985. Available from the Applied Population Laboratory, Department of Rural Sociology, University of Wisconsin–Extension, 1450 Linden Drive, Madison, WI 53706. $5.00.

Wisconsin Occupational Projections to 1990. 1983. This report shows detailed occupational employment to 1990. It is based on the 1990 industry projections (see above). Available from the Job Service Library, Wisconsin Department of Industry, Labor and Human Relations, PO Box 7944, Madison, WI 53707. Free.

Wisconsin Population Projects – Fourth Edition. Population projections to the year 2010 by county, by sex, and five year age groups. Includes births, deaths, and net migration. Available from the Wisconsin State Data Center, Demographic Services Center, Department of Administration, 101 South Webster Street, 6th Floor, Madison, WI 53702. Free.

Wisconsin School District Printout. A series of seven tables for every school district with 1980 census data on population, housing, and social characteristics. Available from the Wisconsin State Data Center, Demographic Services Center, Department of Administration, 101 South Webster Street, 6th Floor, Madison, WI 53702. Free.

Wisconsin Statistics: A Directory of Sources, 2nd Edition. 1980. This directory is an annotated list of reports containing statistical information about Wisconsin. The titles are arranged in broad subject categories with a subject index. The names and telephone numbers of people to contact about the information are included. There is also an indication of the geographic coverage of the data and the presence of selected demographic breakdowns. Available from the Job Service Library, Wisconsin Department of Industry, Labor and Human Relations, PO Box 7944, Madison, WI 53707. Free.

Wisconsin Youth, Work and the Economy – What Now? 1980. This report, a supplement to *Wisconsin Youth, Work and the Economy*, (1979) looks at Wisconsin youth in light of the recession of the early 1980's. The report reproduces some basic labor market statistics from the earlier report and includes new material on population, labor force participation, school enrollment, dropouts, job openings, arrest rates, and various youth programs. Available from the Job Service Library, Wisconsin Department of Industry, Labor and Human Relations, PO Box 7944, Madison, WI 53707. Free.

Wisconsin's Elderly. A graphic overview of older persons as a dynamic demographic group. Available from the Wisconsin State Data Center, Demographic Services Center, Department of Administration, 101 South Webster Street, 6th Floor, Madison, WI 53702. Free.

WISPOP – Wisconsin Population Computer Information System. A data base which produces over 60 tables on population, housing, income, poverty, and labor force. Data is available for Wisconsin as a whole, at the county, city, town, and village levels, and in "custom" combinations. Available from the Applied Population Laboratory, Department of Rural Sociology, University of Wisconsin–Extension, 1450 Linden Drive, Madison, WI 53706. On-line subscription: $50.00. One-time subscription fee and $12.00 per connect hour ($24.00 bimonthly minimum). Call-in request: $5.00 per run plus 25 cents per table per place.

Women in the Labor Force. An update of *Women Working in Wisconsin* (1978). This report includes an analysis of women in the Wisconsin labor market, with more recent statistics showing women's employment, unemployment, and earnings. Statistics and commentary focus attention on economic and social issues arising from women's growing labor force participation. 1980. Available from the Job Service Library, Wisconsin Department of Industry, Labor and Human Relations, PO Box 7944, Madison, WI 53707. Free.

WSDC NEWS. The biannual newsletter of the Wisconsin State Data Center. Available from the Wisconsin State Data Center, Demographic Services Center, Department of Administration, 101 South Webster Street, 6th Floor, Madison, WI 53702. Free.

Federal Sources

Area Wage Surveys. Department of Labor, Bureau of Labor Statistics. Survey of selected occupations done annually for larger metropolitan areas. Available from the Government Printing Office, 517 East Wisconsin Avenue, Room 190, Milwaukee, WI 53403. Yearly subscription $102.00. Single copies available.

Armed Services Vocational Aptitude Battery (ASVAB) - A Guide for Counselors and Educators, or *A Student Guide to the ASVAB* Contact U.S. Military Entrance Processing Command, 2500 Green Bay Road, North Chicago, IL 60064. Free.

Career and Labor Market Information: Key to Improved Individual Decision Making. U.S. Department of Labor, Employment and Training Administration, Division of Labor Market Information. 1980. Focuses on the nature, characteristics, requirements, and benefits of occupations, education, and training in the context of current and projected labor markets. Available from the Government Printing Office, 517 East Wisconsin Avenue, Room 190, Milwaukee, WI 53403. Currently out of print. Check local library or Job Service.

Career Opportunities in Art Museums, Zoos, and Other Interesting Places. U.S. Department of Labor, Employment and Training Administration. 1980. Provides background information on museums, zoos, and parks, as well as detailed descriptions of current occupations in these fields. Available from the Government Printing Office, 517 East Wisconsin Avenue, Room 190, Milwaukee, WI 53403. $7.00.

Career Opportunities in the Hotel and Restaurant Industries. U.S. Department of Labor, Employment and Training Administration. 1982. Contains detailed descriptions of current

occupations within the hotel and restaurant industries, employer's educational and training requirements, and characteristics which may be helpful in performing the job. Available from the Government Printing Office, 517 East Wisconsin Avenue, Room 190, Milwaukee, WI 53403. $5.50.

Classification of Instructional Programs. U.S. Department of Education, Office of Educational Research and Improvement, National Center for Education Statistics. 1981. A classification system intended as a reference tool to assist in the collection, reporting, and interpretation of data about instructional programs. GPO Stock No. 065-000-00088-1. Available from the Government Printing Office, 517 East Wisconsin Avenue, Room 190, Milwaukee, WI 53403. Currently out of print. Check local library or educational institution.

Classification Structure for Career Information. Roger H. Lambert, David Caulum, et al. Vocational Studies Center, University of Wisconsin–Madison and the National Occupational Information Coordinating Committee. Eight Volumes. 1981. Vocational Studies Center, UW–Madison, 1025 West Johnson, 964 Educational Sciences Building, Madison, WI 53706. $14.00 per volume. $112.00/complete set.

Census of Population, 1980. U.S. Bureau of the Census. There is a wide variety of data: population, population characteristics, labor force, education. The statistics are contained in four basic volumes:
Vol. 1 – *Number of Inhabitants* 1982, $4.50.
Vol. 2 – *General Population Characteristics* 1983, $7.50.
Vol. 3 – *General Social and Economic Characteristics* 1983, $6.00.
Vol. 4 – *Detailed Characteristics* 1984, out of print.
Available from the Government Bookstore, 517 East Wisconsin Avenue, Room 190, Milwaukee, WI 53403.

Conversion Table of Code and Title Changes, Third to Fourth Editions Dictionary of Occupational Titles. U.S. Department of Labor, Employment and Training Administration, U.S. Employment Service. 1979. Contains occupational code and title changes between third and fourth edition DOTs. GPO Stock No. 029-013-00082-9. Available from the Government Printing Office, 517 East Wisconsin Avenue, Room 190, Milwaukee, WI 53403. Currently out of print. Check local library or Job Service.

Counselor's Manual for the Armed Services Vocational Aptitude Battery Form 14. U.S. Department of Defense. 1984. A multiple aptitude battery of tests designed for students in the 11th and 12th grades. Developed to yield results that are useful to both the military and schools. Available from the U.S. Department of Defense, the Pentagon, Washington, D.C. 20581. Free.

A Dictionary of Counselor Education Courses Covering Career, Occupational, and Labor Market Concepts. National Occupational Information Coordinating Committee. 1984. A nationwide directory of counselor preparation programs dealing with career and labor market information. NOICC, 2100 M Street, N.W., Suite 156, Washington, D.C. 20037. Free.

Dictionary of Occupational Titles. U.S. Department of Labor, Employment and Training Administration, U.S. Employment Service. Fourth Edition, 1977. Contains definitions for 12,099 occupational titles as well as 8,000 undefined related titles. GPO Stock No. 029-013-00079-9. Available from the Government Printing Office, 517 East Wisconsin Avenue, Room 190, Milwaukee, WI 53403. $23.00.

Employment and Earnings. U.S. Bureau of Labor Statistics. Current statistics on all aspects of U.S. employment. Most data is for entire U.S. Data is limited for Wisconsin and SMSA's. Published monthly. Available from the Government Printing Office, 517 East Wisconsin Avenue, Room 190, Milwaukee, WI 53403. $31.00 per year; $4.50 single copy.

Environmental Protection Careers Guidebook. U.S. Department of Labor, Employment and Training Administration, and U.S. Environmental Protection Agency. 1980. Provides overviews as well as detailed descriptions of the activities, responsibilities, and educational requirements of the major occupations directly concerned with environmental protection. Available from the Government Printing Office, 517 East Wisconsin Avenue, Room 190, Milwaukee, WI 53403. $7.50.

Exploring Careers. U.S. Department of Labor, Bureau of Labor Statistics. Provides information about the world of work for students of junior high school age. Fifteen booklets. Bulletin No. 2001. GPO Stock No. 029-001-02224-7.

Available from the Government Printing Office, 517 East Wisconsin Avenue, Room 190, Milwaukee, WI 53403. $10.00.

Guide for Occupational Exploration. U.S. Department of Labor, Employment and Training Administration, U. S. Employment Service, Fourth Edition. 1979. Groups all occupations listed in the DOT by the interests, abilities, and traits necessary for successful performance. GPO Stock No. 029-013-00080-2. Available from the Government Printing Office, 517 East Wisconsin Avenue, Room 190, Milwaukee, WI 53403. $11.00.

Handbook for Analyzing Jobs. U.S. Department of Labor, Manpower Administration. 1972. Provides a structured procedure for obtaining and recording job analysis data. GPO Stock No. 029-000-00131-6. Available from the Government Printing Office, 517 East Wisconsin Avenue, Milwaukee, WI 53403. $9.00.

Health Careers Guidebook, Fourth Edition. U.S. Department of Labor, Employment and Training Administration: U.S. Department of Health, Education, and Welfare, Health Resources Administration. 1979. Contains individual career descriptions for approximately 100 occupations in the health field. Also covers methods of obtaining financial aid for education. GPO Stock No. 029-000-00343-2. Available from the Government Printing Office, 517 East Wisconsin Avenue, Room 190, Milwaukee, WI 53403. $5.25.

Improved Career Decision Making Through the Use of Labor Market Information. U.S. Department of Labor, Employment and Training Administration, Division of Operation Analysis and Labor Market Information. 1984. Provides counselors with sources of labor market information, structure of labor markets, and guide to the use of labor market information in a counseling setting. Available from the Government Printing Office, 517 East Wisconsin Avenue, Room 190, Milwaukee, WI 53403.

Industry Wage Surveys. U.S. Department of Labor, Bureau of Labor Statistics. Provides wage data for occupations within a wide range of industries, for the larger metropolitan areas. Available from the Government Printing Office, 517 East Wisconsin Avenue, Room 190, Milwaukee, WI 53403. Varies in price according to location.

Jobs in the Private Sector: Use of Labor Market Information. U.S. Department of Labor, Employment and Training Administration, Division of Labor Market Information. 1980. Monograph No. 2. Covers the issues and techniques involved in the identification and analysis of local job opportunities. Available from the Government Printing Office, 517 East Wisconsin Avenue, Room 190, Milwaukee, WI 53403. Currently out of print. Check local library or Job Service.

Military Career Guide. U.S. Military Entrance Processing Command, 2500 Green Bay Road, North Chicago, IL 60064. Free.

Military Women in the Department of Defense. U.S. Department of Defense, OASD, Pentagon, Washington, D.C. 20301-4000. April, 1985.

Monthly Labor Review. U.S. Bureau of Labor Statistics. Contains both statistics and research articles about the economy and labor market. Published monthly. Available from the Government Printing Office, 517 East Wisconsin Avenue, Room 190, Milwaukee, WI 53403. Yearly subscription $24.00. Single issue $4.00.

Occupational Outlook Handbook. U.S. Department of Labor, Bureau of Labor Statistics. 1986. Provides an overview of about 200 occupations on a nationwide basis. Available from the Government Printing Office, 517 East Wisconsin Avenue, Room 190, Milwaukee, WI 53403. $8.50.

Occupational Outlook Quarterly. U.S. Department of Labor, Bureau of Labor Statistics. Provides information about different fields of work, as well as specific occupations, education and training requirements, wage data, and future trends in employment. Available from the Government Printing Office, 517 East Wisconsin Avenue, Room 190, Milwaukee, WI 53403. $11.00.

PROFILE, A Guide to Military Careers. U.S. Department of Defense. DOD High School News Service, PROFILE, Bldg. X-18, Norfolk, VA 23511-6698. Monthly. Free.

Selected Characteristics of Occupations Defined in the Dictionary of Occupational Titles. U.S. Department of Labor, Employment and Training Administration, U.S. Employment Service. 1981. Provides data on the physical demands, environmental conditions, and training

time required for each of the 12,099 occupations defined in the DOT. Available from the Government Printing Office, 517 East Wisconsin Avenue, Room 190, Milwaukee, WI 53403. $11.50.

Standard Occupational Classification Manual. 1980. U.S. Department of Commerce, Office of Federal Statistical Policy and Standards. A coding system that identifies and classifies occupations on the basis of work performed. GPO Document No. 1980-0-332-946. Available from the Government Printing Office, 517 East Wisconsin Avenue, Room 190, Milwaukee, WI 53403. $17.00.

Standard Terminology for Curriculum and Instruction in Local and State School Systems–Handbook VI. U.S. Department of Health, Education and Welfare. Provides the terminology for use by local and state school systems in keeping records and making reports about curriculum and instructional programs. 1970. National Center for Education Statistics. Superintendent of Documents Catalog No. HE 5.223:23052.

Vocational Preparation and Occupations, Volume I. National Occupational Information Coordinating Committee. 1982. A cross-classification resource which links educational and occupational classification structures that are in current use. GPO Source Document Number 029-014-00209-7. Available from the Government Printing Office, 517 East Wisconsin Avenue, Room 190, Milwaukee, WI 53403. $21.00.

Other Sources

Career Opportunity News. Garrett Park Press. Garrett Park, MD. Published six times a year. Includes current outlook in various occupations, resources to aid job seekers and counselors, special opportunities for minorities, and women's career notes. Garrett Park Press, Garrett Park, MD 20896. $30.00 per year. Single issues $4.00 each.

Careers, a Guide for High School Students. E. M. Guild Co., New York. Published three times a year. Gives students current information about career prospects in various fields. E.M. Guild, 1001 Avenue of the Americas, 10th Floor, New York, NY. $2.00 per issue.

Conversion Table, DOT Industry Designations—Standard Industrial Classification. Employment Security Commission of North Carolina, Employment Service Division, Occupational Analysis Field Center. 1979. Relates DOT industry designations, which are based on economic or industrial area of activity, to SIC codes, which classify establishments according to type of activity in which they are engaged.

Counseling for Careers in the 1980's. S. Norman Feingold. 1979. Looks at the society of the future and implications for the changing role of counselors. Garrett Park Press. Garrett Park, MD 20896. $6.95.

Emerging Careers: New Occupations for the Year 2000 and Beyond. S. Norman Feingold and Norm Reno Miller. 1983. A look at the forces that are changing the world of work and the fields in which the changes will be most significant. Garrett Park Press. Garrett Park, MD 20896. $11.95.

Encyclopedia of Careers and Vocational Guidance (6th ed.). 1985. Three volumes. Gives information about different areas of work, references specific information about occupations. Doubleday Printing Co., 245 Park Avenue, New York, NY 10017. $69.95.

Handbook of Trade and Technical Careers and Training. National Association of Trade and Technical Schools. A nationwide list of schools that offer training in 98 different occupations. National Association of Trade and Technical Schools, 2021 K Street, N.W., Washington, D.C. 20006. Free.

Job Counselor's Manual: A Behavioral Approach to Vocational Counseling. Nathan H. Azrin and Victoria A. Besalel. Applies behavioral psychology to job finding and vocational counseling processes. University Park Press, 300 North Charles Street, Baltimore, MD 21201. $17.00.

The National Guide to Educational Credit for Training Programs. American Council on Education, Washington, D.C. Contains credit recommendations for formal educational programs and courses sponsored by non-collegiate organisations whose primary function is not education, but who offer courses to their employees or members. American Council on Education, 1 DuPont Circle, Washington, D.C. 20036. $37.50.

Private Rules in Career Decision Making. John D. Krumbolts. 1983. Focuses on the concept of private career development beliefs, what

they are, how they affect the individual holding them, and how identifying them can assist in the career guidance process. Available from the National Center for Research in Vocational Education, Ohio State University, 1960 Kenny Road, Columbus, OH 43210. $5.75.

Short-term Counseling. Irving L. Janis. Yale University Press. 1983. Brief forms of counseling designed to aid people making decisions. Valuable for readers who want more counseling guidelines and procedures for working with clients. Yale University Press, 302 Temple Street, New Haven, CT 06520. $9.95.

Where the Jobs Are. William L. McKee and Richard C. Foreschle. W. E. Upjohn Institute for Employment Research. 1985. 300 South Woolridge Avenue, Kalamazoo, MI 49007. $11.95.

Whither Guidance: Future Directions. S. Norman Feingold. 1981. How the transformation of the world of work and the attitudes toward work and career will affect the work of the professional counselor. Garrett Park Press. Garrett Park, MD 20896. $6.95.

Computer-Aided Guidance

Annual Directory of State-Based Career Information Delivery Systems. Association of Computer-Based Systems for Career Information. Current and comparable information about 42 CIDS. ACSCI Clearinghouse, University of Oregon, 1787 Agate Street, Eugene, OR 97403. $5.00.

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Using What You Know 6

"There are some things which are impossible to know; but it is impossible to know which things these are"
(one of Murphy's Laws)

Perfect information is a term used in the decision making literature to describe a condition when everything is known about a specific decision to be made. This condition probably never exists when making career choices. But when do you arrive at the condition where you have enough information? When do you have the "right facts"? Making up your mind is hard to do!

Getting enough of the right information is indeed a problem. But there is another problem. Mark Twain once said, "It ain't the things you don't know that gets you in trouble, it's the things you know for sure that ain't so."

Well, Mark Twain was half right. It is true that your misperceptions, your faulty beliefs, get you in trouble. But the things you don't know can also get you in trouble. This is certainly true when dealing with information about the labor market. The effective counselor should always keep in mind these two potential problems related to using labor market information in career decision making:

- lack of information
- faulty information

It is probably easier to discover the kinds of labor market information clients do not have than it is to find out what they "know for sure that ain't so." However, there are some things counselors can do.

Remember, labor market information is information about workers and jobs. It is descriptive and statistical. Counselors should help clients to be sure they have all combinations of labor market information:

Descriptive/Workers	**Statistical/Workers**
Descriptive/Jobs	**Statistical/Jobs**

Lack of statistical data about workers or jobs before choosing a particular job could "get you in trouble." And the same is true about faulty descriptive information. Using the above combinations during counseling could help avoid either deficit. Perfect statistical or descriptive information about the labor market is impossible to get. But a wise decision maker will get as much of each as is appropriate in each decision.

TWELVE SAMPLE CASES

The following are abbreviated illustrations of fictitious case histories. They are intended to be examples of a variety of counseling situations that may apply to a variety of clients. The use of labor market information and its potential sources is illustrated in the context of these counseling cases.

A brief abstract of each of the twelve cases follows:

1. Leslie: A displaced homemaker seeking a career and work for the first time in thirty years.
2. Sam: A displaced factory assembly line worker, 57 years old, without skills or education.

3. Del: A high school senior, planning his career.
4. Tracy: A registered nurse who has relocated, seeking a local nursing job.
5. Sally: A technical illustrator, unsatisfied with her job, wants to change careers.
6. Roger: A truck driver, injured on the job, must find new work.
7. Bill: A school dropout looking for a job, but unsure of the kind of work he would like.
8. Kim: An elementary school student becoming aware of the world of work.
9. Jack: A junior high/middle school student selecting and making high school plans for classes and a career beyond.
10. Susan: A teen-age parent.
11. Fred: A high school junior with a physical handicap.
12. Mary: A graduating senior making career plans.

The case studies that follow are not intended to be models of exemplary counseling techniques, or even totally realistic situations. But they do illustrate a variety of career counseling needs.

Leslie

(Displaced Homemaker)

Leslie Sullivan, a homemaker for 30 years, is recently divorced. She is 49 years old and has never been employed for pay. Her youngest child lives at home and is a junior in high school. Leslie has been able to keep her house of 25 years by using her divorce settlement, but she must assume mortgage payments. Her child support and alimony payments have been irregular and she worries about losing them completely. She has no other income. She has a high school diploma and thinks she would like to take a typing course at the local vocational school. She is not sure about the kind of work she would like to do, or could do, and is worried about her daughter being home alone after school. She needs income right away but is worried about being tied down to a demanding job. She is an avid gardener and enjoys making her own clothes.

I. Personal Issues

1. Income needs
2. Orientation to work
3. Daughter's independence

II. Labor Market Issues

A. Exploration issues

1. Identify interests
   a. Identify trial work experience
   b. Strong-Campbell Crosswalks
2. Identify skills
3. Learn about occupations
4. Set goals

B. Placement issues
(None at this time)

III. Use of Resources: Exploration

A. Actions	B. Results
1. **Identify interests.** Took the Strong-Campbell standardised interest inventory purchased from publisher.	1. Identified interest areas and work areas related to personality factors.
2. **Identify skills.** Used the Form E version of the *Micro-SKILLS* worksheet and the WCIS microcomputer program.	2. Analysed past work experiences and identified 35 of the most satisfying skills; got a list of occupations to match skills.
3. **Learn about occupations.** Used the *WCIS Crosswalk* to find a list of occupations to match her Strong-Campbell score. Studied the *WCIS Occupations Handbook*, looking up occupations from the *Crosswalk Directory* and the *Micro-SKILLS* printout.	3. Learned about many interesting occupations. Particularly liked those dealing with plants in the 5500 SOC group. She is looking into sales jobs—especially those that deal with plants.

IV. Placement

1. **Trial work experience.** Wants to try a part-time job with a nursery, called the local Job Service office.	1. Job Service reported three possible openings. She also checked the Yellow Pages for possible contacts.

Sam

(Displaced Factory Worker)

Sam Harris worked as an assembly line worker in an auto plant in Wisconsin for 18 years, until the plant closed down. He and his wife, Faye, own their home and have raised four children. Sam has always made a good income so Faye has never had to work. They are both 57, have high school diplomas, and do not want to leave their hometown. Sam's outside interests are hunting and fishing, and Faye has been active in their church. There is not enough money in Sam's pension to live on if he takes early retirement. Unemployment compensation has run out. Sam still feels that something will turn up and wants to "wait it out and see." He does not want Faye to work. He is spending more and more time at the local tavern with his friends from the plant.

I. Personal Issues

1. Unemployment
2. Income support
3. Re-orientation to work
4. Possible alcohol abuse

II. Labor Market Issues

A. Exploration issues
1. Identify interests
2. Identify transferable work experience
3. Explore occupations that may be suitable
4. Decide if training is necessary or desired
5. Set goals/evaluate motivation

B. Placement issues
(None at this time)

III. Use of Resources: Exploration

A. Actions	B. Results
1. **Identify transferable skills.** Use *Micro-SKILLS* automatic processing form.	1. *Micro-SKILLS* showed the skills used by an assembly line worker and listed alternative careers.
2. **Identify transferable work experience.** Use *Computer Questionnaire #3* with the WCIS Full System Micro version.	2. Looked at the requirements of job as assembly line worker, identified what he liked best about his old job, and got a list of occupations to match his preferences.
3. **Explore occupations.** Used *WCIS Occupations Handbook* to read about the occupations listed on both computer printouts.	3. Liked some of the occupations described.
4. **Training.** Using *WCIS Occupations Handbook* education references and sections on entry requirements and how to get ahead, was able to see which occupations required further training.	4. Most occupations required some further training.
5. **Set goals/evaluate.** Discussed options with counselor.	5. Wants to think about options and talk with his wife.

Del

(College-Bound High School Student)

Del Brown is a senior at Stevens Point Senior High School and his grades are high enough to get into any Wisconsin college. His family lives on a dairy farm that has been in the family for three generations. He has always helped out with chores and has worked summers doing whatever needed to be done. His parents do not want him to go into farming. They want him to become a physician like his uncle. He would like to do something related to farming that does not involve the long hours and financial risks. He is not interested in agri-business. He enjoys being outside a great deal and wants to stay in the Stevens Point area.

I. Personal Issues

1. Establishing independence
2. Becoming more self-aware
3. Finding a satisfying career

II. Labor Market Issues

A. Exploration issues
1. Identify interests
2. Identify occupations
3. Choose post-high school education

B. Placement issues
1. Identify schools
2. Compare and decide

III. Use of Resources: Exploration

A. Actions

1. **Identify interests.** Filled out *Computer Questionnaire* #2, items 1–5. On WCIS Full System Micro program, entered these items, then entered four agriculture and environmental majors (one at a time). Got a list of occupations for first major, then removed that major from list and entered second one. Got another list and removed the major. Entered third one, etc.

2. **Identify occupations.** Using occupation numbers on the printout, he printed out occupation descriptions of favored occupations to study.

3. **Choose major.** Narrowed choice down to two majors and will look for schools offering both. That would allow him to keep his options open until he can learn more.

(continued on next page)

B. Results

1. Identified several occupations he liked. Discovered that two of the four majors had more interesting occupations related to them.

2. Really liked occupations associated with two majors.

IV. Placement

1. **Find possible choices.** Used the "all-selector" search on the Full System Micro program to find schools offering both majors.	1. Found three in-state schools offering both majors.
2. **Compare and decide.** Still using Full System Micro search, got information about the schools. Also compared information on following topics: entrance requirements costs location unique school strengths financial aids available placement services size of school	2. Found that the school nearest him offered sports he liked and had lower costs than the others.
3. **Choose school.** Using addresses on printout, he wrote each of the three schools asking for information about the programs of study.	3. Liked the programs offered by the school closest to him and is applying there.

Tracy

(Job Placement)

Tracy Miller, a registered nurse, has just moved to Eau Claire to live with her mother who is getting too old to live alone. She is looking for work and needs to make enough money to support herself and help pay for medical bills for her mother. She must also have a job that will allow her to adjust her hours from time to time when her mother is ill. She has registered with the state of Wisconsin and is ready to begin work today.

I. **Personal Issues**

1. Finding a place to live
2. Money to live on until job provides support

II. **Labor Market Issues**

A. Exploration issues
(None at this time)

B. Placement issues
1. What are the local opportunities for nurses?
2. What are the pay scales?
3. Where are the openings in this area?

III. **Use of Resources: Exploration**

IV. **Placement**

A. Actions

1. **What are opportunities for nurses?** Used WCIS *Occupations Handbook* for 1) number of openings expected, 2) outlook by area of the state. Used DILHR Resources for number of places that hire nurses (through SIC Code).

2. **What are the pay scales?** (See sample *Occupational Description* in Appendix A.) Used WCIS *Occupations Handbook* for Wisconsin pay range. Used OOH, GOE for further national information regarding salaries.

3. **Where are the openings in this area?** Called Job Service to check.

B. Results

1. 23,033 = number of openings expected in period 1980–90.

   Outlook is fair across the state; better in rural areas.

2. In Wisconsin the salary range is $14,000 – $19,000/year.

   Nationally, the range is $12,000 – $30,000 per year according to WCIS.

3. Job Service showed two current RN job listings. She went to Job Service to submit her application.

Sally

(Mid-life Career Change)

Sally Ellison is 44 years old and has worked as an advertising illustrator for 12 years. She enjoys graphics and likes the people she works with, but is ready to do something different. She has talked with her boss, but there are no opportunities with her present company. She does not want to go back to school. She wants to use her design skills but wants more contact with people and greater variety in her work. She lives in this area and wants to stay here near friends and family. She is a single parent of a 5-year-old, so she needs to make a good salary.

I. Personal Issues

II. Labor Market Issues

A. Exploration issues
1. Identify interests
2. Identify skills
3. Identify values
4. Get information about occupations
5. Determine salaries for different jobs

B. Placement issues
1. What jobs are available?
2. Is training available?
3. Is financial aid available?

III. Use of Resources: Exploration

A. Actions	B. Results
1. **Identify interests.** Use WCIS "Jiffy Work Experience Inventory" and Full System Micro program.	1. Remembered former experiences she enjoyed and got a list of occupations to match those interests.
2. **Identify skills.** Use WCIS *Micro-SKILLS*, entering the same experiences listed in Jiffy, then identify the skills used.	2. Identified satisfying skills from her past experiences. Identified occupations that match her skills, using the Jiffy search and *Micro-SKILLS* list.
3. **Identify values.** Used WCIS PREP booklet.	3. She realised how important helping other people is to her.
4. **Get information about occupations.** Used references from printouts to WCIS *Occupations Handbook* and OOH to learn what people in listed occupations do.	4. She discovered that the allied health field is an area she should explore.
5. **What do different jobs pay?** Using same resources from WCIS and OOH, got national and Wisconsin salary information.	5. She discovered she could support herself well with many of the occupations listed. She narrowed her list of preferred occupations on the lists.

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IV. Placement

1. **What jobs are available?** Using DILHR resources like Community Business Patterns, got information on industries in the area. Used DOT numbers and SIC Code to generate a list of industries that hire allied health personnel. Used Yellow Pages and manufacturing guide to get names and addresses of organizations that hire health personnel. Called Job Service to see if any organizations are hiring. Called personnel departments directly to see if they have openings coming up.	1. She then identified those closest to her home as prospects for making application to.
2. **What training is available?** Used WCIS *Education Handbook* to get a listing of schools that offer particular training programs. (See sample programs of study in Appendix A.)	2. Found a school in her area that offered three of the programs she was considering.
2. **Is there any financial aid?** Used WCIS *Education Handbook* to learn about types of financial aid programs offered by the school. Used WCIS *Financial Aid Workbook* and *Financial Aid SCAN*.	3. She had the names of several financial aid programs to inquire about when she visited the financial aid officer at the school. Gathered information needed to qualify for financial aid.

Roger

(Job Retraining for Disabled Worker)

Roger Smith, a truck driver for over 18 years, is no longer able to perform the job due to back and neck injuries suffered in an accident. Roger has always enjoyed trucking, which is the only kind of work he has ever done. As a teenager, he developed an interest in fixing old cars and knows quite a bit about mechanics and body work. Now, he is quite depressed because he cannot do any bending and lifting. He says he cannot drive, cannot work as an auto or truck mechanic, and needs a job right away.

I. Personal Issues

1. Depression
2. Unemployment
3. Re-orientation to work
4. Needs to identify extent of impairment from injury

II. Labor Market Issues

A. Exploration issues

1. Identify skills from past experience
2. Find related occupations he is capable of performing.
3. Can he find occupations that pay enough to support him?
4. Will he need training?

B. Placement issues

1. Identify possible local companies/industries in area.
2. Are there any openings?
3. Where can he get training?

III. Use of Resources: Exploration

A. Actions

1. **Identify skills from past experiences.** Used *Micro-SKILLS* Worksheet Easy Reading Form E.
2. **Find related occupations he is capable of performing.** Using *Micro-SKILLS*, asked for information for the occupations that sounded most attractive.
3. **Can he find occupations he likes that pay enough to support him?** Using information from *Micro-SKILLS*, he got references to the WCIS *Occupations Handbook*, OOH, and GOE.
4. **Will he need training?** Using WCIS *Occupations Handbook*, read appropriate sections on "Method of Entry".

B. Results

1. Identified 35 skills from past experiences he presently found satisfying.
   Got a listing of the 30 best-matching occupations.
2. Got references to related DOT titles. Used the DOT breakdown of physical traits to eliminate unsuitable occupations.
3. Using WCIS *Occupations Handbook*, read Wisconsin salary information and found that most of his favored occupations would support him in Wisconsin.
   He got national salary information about the occupations from OOH and GOE.
4. He found that some occupations required specific vocational training and others did not.

(continued on next page)

IV. Placement

1. **Identify possible local companies (industries) in the area.** Using DOT references from *Micro-SKILLS* and the SIC Classified Code got SIC code numbers of related industries, or using OOH and WCIS got names of related industries.	1. Used Community Business Patterns, Yellow Pages, or Chamber of Commerce publications to get names of businesses.
2. **Are there any openings?** Contacted Job Service and/or local industries directly. (Used Manufacturer's Guide or Yellow Pages.)	2. Got a listing of specific companies to contact.
3. **Where can I get training?** Used the educational references from the WCIS *Occupations Handbook*. Checked Programs of Study information in the WCIS *Education Handbook*.	3. Got listing of schools that offered the training in desired areas. Got information about schools regarding entry requirements, fees, financial aid, services, etc.

Bill

(High School Dropout)

Bill Williams is 19 years old and is a high school dropout. Bill finished his junior year in high school and took a job with a paving contractor for the summer. He is not a good student and is adamant about not going back to school. He is anxious to be out on his own. He is willing to do anything. Bill does not want to leave Wisconsin and, if he can find work here in his hometown, he would like to stay there.

I. Personal Issues

1. Independence (moving out)
2. How to support himself

II. Labor Market Issues

A. Exploration issues

1. Identify interests
2. Get occupational information.
3. Consider going back to school to get a better job.
4. Identify values

B. Placement issues

1. Bill does not want to move out of Wisconsin
2. If he decides to go back to school, can he work and go to school in the evenings and weekends? What programs are available?
3. Should he worry about being replaced by a robot someday?

III. Use of Resources: Exploration

A. Actions	B. Results
1. **Identify interests.** Used *PREP* booklet to relate past experiences to interests.	1. Learned about self and how to describe his interests.
2. **Get occupational information.** Used *Career Scan* to match occupations to interests. With references from *Career Scan*, used WCIS *Occupations Handbook*, OOH, *Environmental Careers*, and other DOL publications to get information on occupations.	2. Got a list of occupations to match his interests. On it, discovered several occupations that sounded interesting.
3. **Would going back to school help him get a better job?** Used *Career Scan* to do a search with interests. Included "less than H.S. diploma," selector. Did another search with same interests and "vocational training" selector.	3. He found more occupations he liked with vocational training than those requiring "less than high school diploma."
4. **Identify Values.** Used pages 38–39 in *PREP*.	4. Narrowed his preferences for occupations from computer search lists to the top five occupations.

(continued on next page)

IV. Placement

1. **Move out of Wisconsin.** Use WCIS *Occupations Handbook*, OOH, other references from *Career Scan* to find national outlook for five top occupations.
   1. Four of the occupations had a good outlook, one had a poor outlook.
2. **Weekend training programs.** Used educational references from WCIS *Occupations Handbook* to WCIS *Education Handbook* to get names and numbers of programs of study. Used *Education Handbook* descriptions of schools to find those offering the training after regular working hours.
   2. Found training programs for the occupations and the schools in his region offering them.

   Found two training programs available "after hours".
3. **Should he worry about being replaced by a robot?** Using WCIS *Occupations Handbook*, followed reference from occupational description to High Technology section.
   3. The occupation with the poor outlook has a higher probability of being taken over by robots. He also learned he should become more familiar with computers.

Kim

(Elementary School Student)

Kim Frandey is in the 3rd grade at Governor Elementary School. Next week, her school is having a career day program and she must choose two sessions to attend. Her friend's mother works in a hospital and will be a speaker. Her parents work in offices, but she is not sure what they do besides talk on the phone.

I. Personal Issues

None

II. Labor Market Issues

A. Exploration issues

1. Awareness

B. Placement issues

None

III. Use of Resources: Exploration

A. Actions

1. **Awareness.** Kim's teacher used the new WCIS materials for elementary grades in preparation for planning a Career Day project. One activity involved students looking at their favorite TV program to find as many different occupations as they could. They talked about them in class. They read about some of the occupations in the WCIS *Occupations Digest*.

B. Results

1. Students were able to make better choices on what activities to attend on Career Day because they knew more about what people do. Some students suggested occupations for Career Day. Kim was surprised to hear from other children that they had seen so many different occupations. The next time she watched her programs, she was much more aware of all of the occupations illustrated. At the next group discussion she was able to describe more occupations.

Jack

(Middle School Student)

Jack Sims is in 7th grade at Kennedy Middle School. He enjoys helping his father repair small appliances in his shop. He has also been active on athletic teams and collects transformers. Jack is an A student in school and his mother wants him to go to college. Next week, he has to write a report about his career interests for his English class. His school has WCIS but he has never used it.

What materials should Jack use and what might he learn?

I. Personal Issues

None

II. Labor Market Issues

A. Exploration issues
1. Identify interests
2. Match to occupations
3. Get information about occupations

B. Placement issues
None

III. Use of Resources: Exploration

A. Actions	B. Results
1. **Identify interests.** Counselor did some group classwork using WCIS. Jack used the *PREP* booklet to help identify his interests.	1. Learned about himself and how his interests apply to occupations.
2. **Match to occupations.** Used *Career Scan.* Took interests identified in *PREP* and got a computer listing of occupations to match.	2. Found several occupations he liked on the list.
3. **Get information about occupations.** Checked out the WCIS *Occupations Handbook* and got information about each occupation.	3. Wrote report using information in books.
4. **Follow up.** His teacher helped him identify local people in the occupations for him to talk to about their work.	4. The teacher arranged a job shadow experience with a local volunteer.

Susan

(High School Parent)

Susan Davidson is in 12th grade and is the mother of a 3-month-old son. The child's father has not associated with them and no longer lives in the same state. Susan has better than a B average in school in spite of many absences during the past year. She would like to finish high school and get training to work in the medical field. Her parents are on Social Security Disability income but have offered to help with childcare as much as they can. Susan has been an office helper at school for a year and is considered dependable and hard working. She likes the work. She would like to move into her own place because her parents "are so conservative." She is afraid she will never get off AFDC.

I. Personal Issues

1. Living arrangements/feasibility of moving out
2. Steady income
3. Child care
4. Personal goals

II. Labor Market Issues

A. Exploration issues

1. Get information about different options for medical careers.
2. Identify preferred choices.
3. Set tentative goals based on outlook, salary requirements, etc.

B. Placement issues

1. Where is training available?
2. Is training feasible for her?
3. Can she qualify?
4. Decide

III. Use of Resources: Exploration

A. Actions

1. **Get information on medical occupations.** Using WCIS *Occupations Handbook*, studied occupations on SOC groups 2600 and 2900 (medical professions).
2. **Identify preferred choices.** Used *SCAN* and *SCAN Worksheet* to search group 2900.
3. **Set tentative goals.** Discussed options with counselor.

B. Results

1. Found many possibilities in group 2900.
2. Answers matched eight occupations in group 2900. Three had better than average salary and outlook.
3. Decided to investigate training options for all three occupations.

(continued on next page)

IV. Placement

1. **Where is training available?** Used *School Scan* to look for schools nearby offering training for the occupation.	1. Got a listing of schools for each training program.
2. **Is training feasible?** Used information from *School Scan* regarding costs, entrance requirements, financial aid, etc.	2. With financial aid for tuition at a school near home, further education became a possibility.
3. **Can she qualify?** Used information from *School Scan* regarding SAT/ACT scores and talked to counselor at school.	3. School counselor thought she could qualify, based on class rank.
4. **Decide.** She decided to talk with teachers about the different programs and the placement service offered by each school. She used the WCIS *Financial Aid Workbook* to help apply for financial aid. She used *Financial Aid Scan* and found she would probably qualify for a Pell Grant.	4. She decided she could do it.

FRED

(High School Student with Disability)

Fred Jamieson has been in a wheelchair all his life with no use of his legs. He will be a junior in high school next year. He has a C+ average, a good attendance record, and is considered to be a hard worker. He wants to go to the local vocational school when he graduates, but does not know what career would be best for him. He has many friends and likes to play rock music on his walkman radio. This year in school, he learned to make computer graphics and thinks they are great. He and his dad fight a lot, and he gets depressed thinking he may have to live with his parents for the rest of his life.

I. Personal Issues

1. Establishing independence
2. Getting along with father

II. Labor Market Issues

A. Exploration issues
1. Identify values/interests
2. Match to occupations
3. Explore different options
4. Plan trial experiences

B. Placement issues
None

III. Use of Resources: Exploration

A. Actions	B. Results
1. **Identify values/interest.** Used *PREP* booklet.	1. Scored high on *PREP* in "visual perception" and "working with things."
2. **Match to occupations.** Used *SCAN Workbook* and worksheet.	2. Matched interests to occupations in 3700 SOC group (technicians and technologists) and the 6000 group (mechanics and repairers).
3. **Explore options.** Used WCIS *Occupations Handbook* to read about different occupations.	3. Learned that some occupations he liked require more education and training than others; that job opportunities differ; and that pay ranges diff[illegible]
4. **Plan trial experiences.** Used "Where to Write for More Information," reference from WCIS *Occupations Handbook*. His teacher identified local people willing to work with youth in the local area.	4. He received first-hand [illegible]perience as a helper in an electronics repair facility.

Mary

(High School Student)

Mary Feather has always helped her father in his carpentry shop. She is very good at it and enjoys the work. Business has not been good in the last few years and her father is planning to retire and close down his shop. Mary will finish high school next year but has no further plans. She has a "C" average and would consider further schooling if she knew what she wanted to do. Her boyfriend thinks she should do something more "ladylike" than carpentry. He wants to get married and move to Milwaukee, but she is not sure. She has done some baby-sitting but did not like it. She was very active in the DECA program in school and won some awards this year in sales contests. She enjoys being outdoors.

I. Personal Issues
   1. Independence
   2. Marriage
   3. Financial independence
   4. Sex equity issues

II. Labor Market Issues
   A. Exploration issues
      1. Identify interests
      2. Identify values
      3. Identify skills
      4. Explore appropriate occupations
      5. Identify training requirements
      6. Set goals
   B. Placement issues
      1. Investigate options in different labor markets
      2. Identify her labor market (decide where she wants to live: i.e., hometown, Milwaukee, or other state)

III. Use of Resources: Exploration

A. Actions	B. Results
1. **Identify interests.** Took COPS standardised interest inventory, then used WCIS *Crosswalk*.	1. Received list of occupations that matched her highest COPS score. Read about these occupations in WCIS *Occupations Handbook*.
2. **Identify values.** Used the Value Exercise in the *PREP* booklet to compare her values with the life-styles associated with each occupation.	2. Was able to identify those occupations that best fit her values.
3. **Identify skills.** Used the *Micro-SKILLS* cards to identify her most satisfying skills, then used the *Micro-SKILLS* microcomputer program to get a list of the 30 best-matching occupations.	3. Was able to identify occupations from the 30 on the list that were the same or similar to those on inventory lists.
4. **Explore occupations.** Used WCIS *Occupations Handbook* to examine job opportunities, salary, training requirements, etc., for the occupations on her list.	4. Was able to identify the best occupational options for the different labor markets she is considering.

(continued on next page)

III. Use of Resources: Exploration (cont'd)

5. **Identify training requirements.** Used references from the occupational descriptions in the WCIS *Occupations Handbook* to the WCIS *Education Handbook* to learn about training, schools, costs, and entry requirements.	5. She found that she could live at home and attend a nearby school that would train her for an occupation that matches her interests, values, and skills. It is an occupation with a good outlook for job opportunities in Wisconsin.
6. **Set goals.** Talked with her counselor about her options. Used the WCIS *Financial Aid Workbook* and *Financial Aid SCAN* to explore options.	6. Applied to schools for financial aid.

IV. Placement

1. **Investigate options in various labor markets.** Mary talked with her counselor about the information on outlook from the WCIS *Occupations Handbook* and DILHR publications such as *County Business Patterns.*	1. She learned where the best opportunities in Wisconsin were for her career choice.
2. **Identify her local labor market.** She discussed her findings, decisions, and feelings with her counselor. This included the need to work during her training.	2. She discovered that her chances were good for getting a part-time job in a related industry while she attended school. This experience would help her find a position when she completed her training.

Epilogue

A Word to the "Unwise"

There are two kinds of people who make career decisions:

1. Those who always use a rational, logical, systematic, wise process.
2. Everyone else.

Most career decision making theories and most career guides describe the first kind of people. The realities of everyday job choices and typical career counseling cases describe the second kind.

Wise decision making does not always mean rational, logical, scientific decision making. Often, some aspects of career choice are imprecise, ambiguous, and defy conventional logic. "Fuzzy thinking" and "muddling through" may sometimes be appropriate, even wise, decision strategies. But people can learn to improve their muddling.

Fuzzy thinking has been defined as "rational thought tempered by intuition." Wise fuzzy thinking is employed when precision is not possible or desired. Muddling through was invented by Roger Golde as the "art of proper unbusinesslike management"[6] to bridge the gap between management theory and the realities of life in most business organizations. We need something to bridge the gap between career decision theory and the realities of the job choice.

Management by objectives (MBO), like career decision making, is not always a science. We are taught that managers make decisions and lovers choose. The former implies mastery, the latter conveys a selection in which we gain some things by giving up others. Perhaps we should think of career choices more like lovers' choices: We are not always in command of all the facts, aware of all the options, or carefully matching self-concept with our choices.

Bridging the gap between theory and reality may mean that career counselors will need to help clients cross some bridges and burn others. But eventually clients must learn how themselves: how to decide, how to choose, how to muddle. Career clients will need to learn how to decide like managers and how to choose like lovers. And to know the difference. This counselor handbook has provided a practical framework and practice for helping clients learn how.

[6] Golde, Roger A. *Muddling Through*. 1976. AMACOM

Yes!

Send me more information about the
WISCONSIN CAREER INFORMATION SYSTEM

I AM ESPECIALLY INTERESTED IN THESE AREAS:

- ☐ General WCIS Products/ Services
- ☐ Microcomputer Programs
- ☐ Special Materials for Jr.High / Middle School
- ☐ Job Hunting Aids

Name_____
School_____
Address_____
City/State/Zip_____
Phone_____

W C I S

WI CAREER INFORMATION SYSTEM
University of Wisconsin-Madison
1025 W. Johnson, 1078 Ed. Sciences Bldg.
Madison, WI 53706
Phone: (608)263-2725

Yes!

Send me more information about the
WISCONSIN CAREER INFORMATION SYSTEM

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- ☐ Microcomputer Programs
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W C I S

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Appendix A

Annotated Guide to Using WCIS Materials for Occupational and Educational Information

This Appendix reproduces the majority of the contents of the Wisconsin Career Information System publication, *OCCUPATIONS DIGEST, OCCUPATIONS & EDUCATION HANDBOOKS: An Annotated Guide.*

Shown here are sample pages taken from the *OCCUPATIONS HANDBOOK* and *EDUCATION HANDBOOK*. Some explanatory annotations have been placed on the samples, also.

4 digit codes indicate national occupation descriptions.

1240
Purchasing Managers

Purchasing managers plan and coordinate buying activities for a store or company. They supervise the work of buyers, purchasing officers, and other workers who order and buy materials, products, or services needed by the store or company. These items may be needed for operations in a business or as merchandise to be resold in a store. Purchasing managers also review purchase orders and requests, decide the amount of goods to be stocked, set prices for goods, and set up contracts with supply houses. These jobs generally involve a standard 30-40 hour work week. Some jobs may require some buying trips and overtime.

Work locations include shiplines, retail companies, and manufacturers.

Titles from the DICTIONARY OF OCCUPATIONAL TITLES include: manager, procurement services; superintendent, commissary; manager, merchandise.

These are references to high technology areas located in the front of the Occupations Handbook.

FUTURE IMPACT OF TECHNOLOGY:
To learn about technologies affecting this occupation, see:
600 Computers in Information Processing
603 Office : Management
680 Computer Integrated Manufacturing (CIM)
681 Management

EMPLOYMENT OUTLOOK IN WISCONSIN:
Number Employed in 1980: 1,246
Number Expected to be Employed in 1990: not available
Expected Openings 1980-1990: not available
This is a small occupation in Wisconsin.

RELATED INFORMATION:
For related titles, see page:
1000 EXECUTIVE, ADMINISTRATIVE, AND MANAGERIAL OCCUPATIONS

Occupation 1240 is one of many occupations within the occupational group 1000; all related occupations are found in the Occupations Handbook on page 1000.

For college programs, see EDUCATION HANDBOOK:
630 BUSINESS AND MANAGEMENT
631 Business and Management, General
634 Business Administration and Management
643 Marketing Management and Research

OTHER SOURCES OF INFORMATION:
•Guide for Occupational Exploration 1979: interest cluster 11.05
•Exploring Careers 1979 p. 108

1250
Managers: Marketing, Advertising, and Public Relations

Some national occupations break down into one or more occupations containing Wisconsin-based information

People in these jobs manage marketing, sales, advertising, or public relations departments in businesses and other organizations. They plan, organize and direct departmental activities; train, supervise, and evaluate staff; and deal with business and other groups to promote sales. They study sales records and prepare reports. They work for advertising agencies, printing and publishing companies, retail stores, utilities, hospitals, insurance companies, and large corporations.

Titles from the DICTIONARY OF OCCUPATIONAL TITLES include: manager, promotion; account executive; manager, public relations.

EMPLOYMENT OUTLOOK IN WISCONSIN:
Number Employed in 1980: 12,608
Number Expected to be Employed in 1990: not available
Expected Openings 1980-1990: not available

See the following occupations for detailed Wisconsin-based information: 1250A.

A letter following the 4-digit code indicates an occupation with extensive Wisconsin information.

1250A Public Relations Managers

For related titles, see page:
1000 EXECUTIVE, ADMINISTRATIVE, AND MANAGERIAL OCCUPATIONS

Suggested programs of study for Public Relations Managers described in the Education Handbook along with a list of the schools offering them.

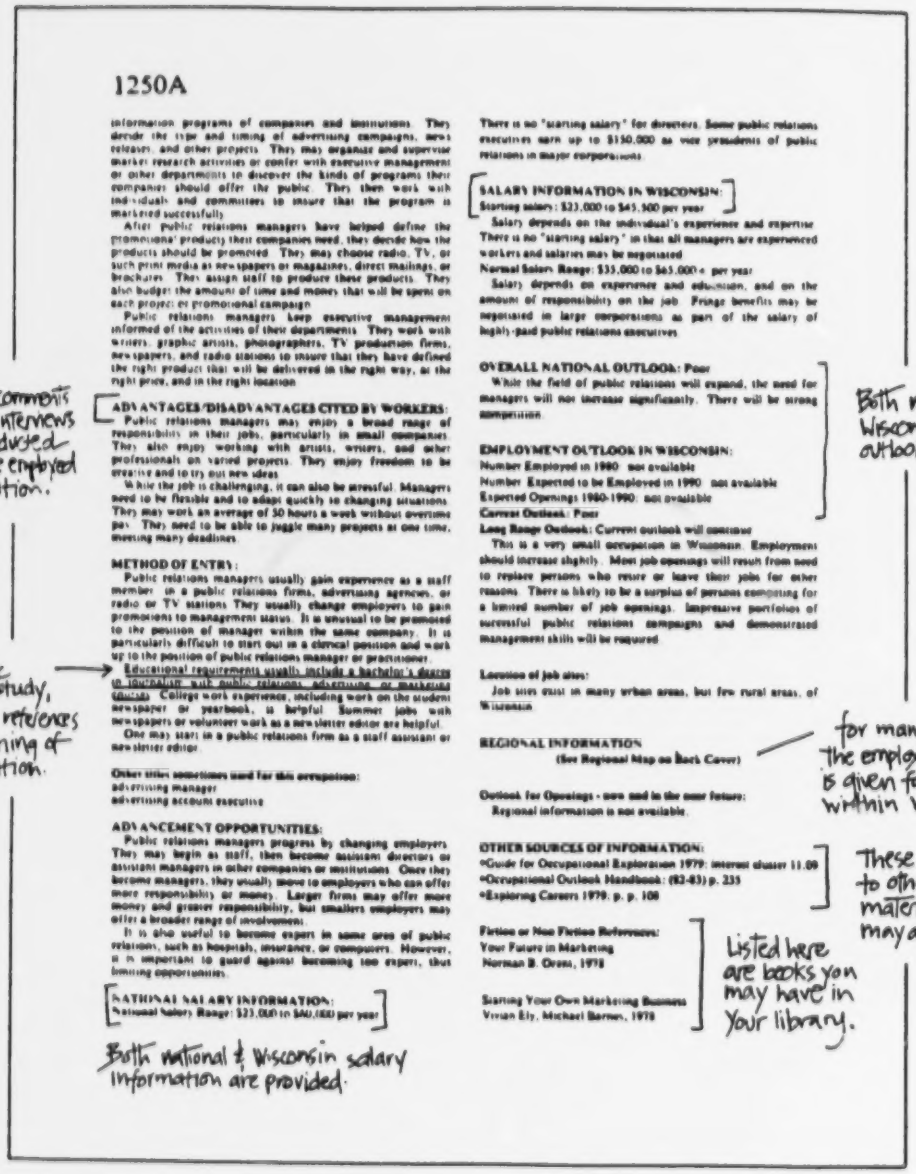
For vocational programs, see EDUCATION HANDBOOK:
150 Marketing (2-yr. Assoc. Degree)
151 Marketing-Communications (2-yr. Assoc. Degree)

For college programs, see EDUCATION HANDBOOK:
630 BUSINESS AND MANAGEMENT
643 Marketing Management and Research
700 COMMUNICATIONS
702 Advertising
707 Public Relations

FUTURE IMPACT OF TECHNOLOGY:
To learn about technologies affecting this occupation, see:
600 Computers in Information Processing
602 Office : Clerical
603 Office : Management
680 Computer Integrated Manufacturing (CIM)
682 Computer-Aided Design (CAD)

OCCUPATIONAL DESCRIPTION:
Public relations managers plan the marketing and public

(1)



1250A

information programs of companies and institutions. They decide the type and timing of advertising campaigns, news releases, and other projects. They may organize and supervise market research activities or confer with executive management or other departments to discover the kinds of programs their companies should offer the public. They then work with individuals and committees to insure that the program is marketed successfully.

After public relations managers have helped define the promotional products their companies need, they decide how the products should be promoted. They may choose radio, TV, or such print media as newspapers or magazines, direct mailings, or brochures. They assign staff to produce these products. They also budget the amount of time and money that will be spent on each project or promotional campaign.

Public relations managers keep executive management informed of the activities of their departments. They work with writers, graphic artists, photographers, TV production firms, newspapers, and radio stations to insure that they have defined the right product that will be delivered in the right way, at the right price, and in the right location.

ADVANTAGES/DISADVANTAGES CITED BY WORKERS:
Public relations managers may enjoy a broad range of responsibility in their jobs, particularly in small companies. They also enjoy working with artists, writers, and other professionals on varied projects. They enjoy freedom to be creative and to try out new ideas.

While the job is challenging, it can also be stressful. Managers need to be flexible and to adapt quickly to changing situations. They may work an average of 50 hours a week without overtime pay. They need to be able to juggle many projects at one time, meeting many deadlines.

METHOD OF ENTRY:
Public relations managers usually gain experience as a staff member in a public relations firm, advertising agencies, or radio or TV stations. They usually change employers to gain promotions to management status. It is unusual to be promoted to the position of manager within the same company. It is particularly difficult to start out in a clerical position and work up to the position of public relations manager or practitioner.

Educational requirements usually include a bachelor's degree in journalism with public relations, advertising, or marketing courses. College work experience, including work on the student newspaper or yearbook, is helpful. Summer jobs with newspapers or volunteer work as a newsletter editor are helpful.

One may start in a public relations firm as a staff assistant or newsletter editor.

Other titles sometimes used for this occupation:
advertising manager
advertising account executive

ADVANCEMENT OPPORTUNITIES:
Public relations managers progress by changing employers. They may begin as staff, then become assistant directors or assistant managers in other companies or institutions. Once they become managers, they usually move to employers who can offer more responsibility or money. Larger firms may offer more money and greater responsibility, but smaller employers may offer a broader range of involvement.

It is also useful to become expert in some area of public relations, such as hospitals, insurance, or computers. However, it is important to guard against becoming too expert, thus limiting opportunities.

NATIONAL SALARY INFORMATION:
National Salary Range: $23,000 to $40,000 per year

There is no "starting salary" for directors. Some public relations executives earn up to $150,000 as vice presidents of public relations in major corporations.

SALARY INFORMATION IN WISCONSIN:
Starting salary: $23,000 to $45,500 per year

Salary depends on the individual's experience and expertise. There is no "starting salary" in that all managers are experienced workers and salaries may be negotiated.
Normal Salary Range: $33,000 to $65,000+ per year

Salary depends on experience and education, and on the amount of responsibility on the job. Fringe benefits may be negotiated in large corporations as part of the salary of highly-paid public relations executives.

OVERALL NATIONAL OUTLOOK: Poor
While the field of public relations will expand, the need for managers will not increase significantly. There will be strong competition.

EMPLOYMENT OUTLOOK IN WISCONSIN:
Number Employed in 1980: not available
Number Expected to be Employed in 1990: not available
Expected Openings 1980-1990: not available
Career Outlook: Poor
Long Range Outlook: Current outlook will continue
This is a very small occupation in Wisconsin. Employment should increase slightly. Most job openings will result from need to replace persons who retire or leave their jobs for other reasons. There is likely to be a surplus of persons competing for a limited number of job openings. Impressive portfolios of successful public relations campaigns and demonstrated management skills will be required.

Location of job sites:
Job sites exist in many urban areas, but few rural areas, of Wisconsin.

REGIONAL INFORMATION
(See Regional Map on Back Cover)

Outlook for Openings - now and in the near future:
Regional information is not available.

OTHER SOURCES OF INFORMATION:
*Guide for Occupational Exploration 1979: interest cluster 11.09
*Occupational Outlook Handbook: (82-83) p. 235
*Exploring Careers 1979: p. p. 108

Fiction or Non Fiction References:
Your Future in Marketing
Norman B. Orens, 1978

Starting Your Own Marketing Business
Vivian Ely, Michael Barnes, 1978

These comments are from interviews we've conducted with people employed in this occupation.

For specific programs of study, refer to the references at the beginning of this occupation.

Both national & Wisconsin salary information are provided.

Both national & Wisconsin employment outlook is given.

for many occupations, the employment outlook is given for 6 regions within Wisconsin.

These refer you to other career materials you may already have.

Listed here are books you may have in your library.

(2)

This high technology major group is described and then broken down into 3 work areas.

You saw a reference to this in occupation 124C under "future impact of technology."

High Technology Area 600 Computers in Information Processing

RELATED WORK AREAS

601 Computer Support Services
602 Office: Clerical
603 Office: Management

GENERAL DESCRIPTION OF AREA

We are changing from an industrial society to an information society. The amount of available information is increasing rapidly. Many occupations are changing from material handling to information handling. Computers have made this transition possible. Computers can manipulate information with great speed and efficiency. The speed at which computers can store, sort, and change data makes them extremely useful in many occupations.

Businesses are using computers to store information concerning products, marketing trends, client records, and company records. This allows businesses to process orders quickly, analyze financial trends, and increase the efficiency of office procedures. Schools are using computers to store student information, process student applications, and grade exams. Schools are also using computers as learning tools at all levels of instruction.

Computers are also used in various types of research. Information is stored on computers, and the data is analyzed to determine if unrelated pieces of data have anything in common. Computers can also organize data very quickly, making it possible for the researcher to work with large amounts of data.

Because computers are changing the way many businesses operate, many workers will need to be retrained. They will need to be familiar with computer systems and be able to use them, whether or not they are directly employed in an information occupation. One of the most common uses of computers is in word processing. A word processor allows the user to compose, organize, and edit text on a video display screen before the text is printed on paper. This greatly increases the efficiency of information processing. These devices are easy to use, and it takes comparatively little time to learn operating procedures.

Creating graphics is another common use for computers. Graphic displays are especially useful in organizing visual presentations. The computer program can arrange information so that it can be displayed or printed in picture form instead of text.

This high technology area discusses three computer work areas. The "Computer Support Services" work area examines electronics, sales and marketing, programming, equipment service, and training. The next area, "Office: Clerical," includes the use of computers by secretaries and librarians. The third area, "Office: Management," discusses the application of computers in a business setting.

601 Computer Support Services

This is the first work area in the "Computers in Information Processing" major group.

DESCRIPTION - CURRENT STATUS:

Computer support services include computer programming and user education. Services also include design of computer hardware equipment, hardware maintenance, and sales. Sales involves marketing computer devices and programs. Technical communications ability is extremely important. Salespersons must be able to explain computer functions to a wide variety of clients, both experienced and new users.

Different computer applications also need to be explained to clients. These applications range from entertainment to business. Different applications require different types of equipment and programs.

Other types of support services involve repair of equipment and customized programming for individual needs. Services will also include consulting with users to help expand the uses of computer systems.

DESCRIPTION - FUTURE:

The demand for workers in computer-related occupations will increase.

IMPACT ON WORKERS:

As more organizations rely on computers, additional computer-related workers will be needed. Software engineers and programmers will be needed to design and write computer programs. In general, programmers work individually on programs, while software engineers work in teams to write more advanced and complex systems of programs. In private industry, programmers are called upon to do maintenance work on programs, such as modifying an existing program to make it more efficient, or to update a program as the needs of a business change.

The demand for programmers may be tempered by several technological advancements. Software is being

designed that is "user friendly." That is, it is not necessary to have a computer background to use it. Computer industries are redesigning computer equipment (hardware) to make it easier to program. The memory chips of microcomputers will be modified to make it easier for customers to build their own software systems by stringing together sets of semi-conductor chips.

Another computer-related area where workers are needed is consulting. People are needed to market software and/or information processing services to others. Software development and marketing is an important industry. New occupations and businesses are emerging in the software area. One occupation is a "software searcher." These workers assist individuals and businesses in determining the appropriate software for their computers. Technical communication skills are very important. Some large corporations have departments that evaluate software. Software directories catalog thousands of programs. These directories must be produced and marketed. New companies selling data base software searches have opened. Clients pay an annual subscription fee to have access to a software data base. (A data base is a collection of related information organized for easy access and processing.)

Training will be a critical task in the next few years. The training will be provided by many different means: hardware and software manufacturers, retailers, independent computer-instruction centers, corporate in-house training programs, public and private schools and universities, and consultants. Public school systems in many states are requiring computer literacy as a prerequisite for high school graduation.

SKILLS AND COMPETENCIES:

Workers in computer support services must have a strong technical knowledge of computers. They also must have the ability to communicate with those who use the equipment or programs. Technical communication abilities will become increasingly important.

REFERENCES:

"A Look into Computer Careers"
American Federation of Information Processing Societies
Arlington, VA 22209

American Society for Information Science
Washington, D.C. 20036

"Computer Careers: The Complete Pocket Guide to America's Fastest Growing Job Market"
Sun Features, Inc.
Cardiff, CA 92007

Information Industry Association
Washington, D.C. 20003

"Your Career in Data Processing"
Data Processing Management Association
Park Ridge, IL 60068

WCIS OCCUPATIONS AFFECTED:

Developments in this work area are expected to have a major effect on the following occupations listed in WCIS. At this time, it is difficult to predict how quickly changes will occur.

1260A Data Base Administrators
1633A Electrical Engineers
1636 Computer Engineers
1712A Computer System Analysts
3970A Computer Programmers
6153A Computer Repairers

[602 Office: Clerical]

This is the second work area.

DESCRIPTION - CURRENT STATUS:

Equipment that can assist with clerical tasks and handle massive amounts of data is valuable to organizations that turn data into usable information. A word processor will have the greatest effect on changing the occupation of secretary or typist. A word processor is similar to a typewriter. It is a microcomputer with software that can correct spelling, electronically erase errors, close holes left by deleted words and phrases, and store written documents. It is superior to a typewriter when writing and rewriting material. Computer graphics are also used in organizing presentations.

DESCRIPTION - FUTURE:

A mainframe computer is a large computer that has terminals connected to it by a telecommunications line. The massive amounts of data stored and processed in a mainframe are entered by data entry operators using the terminals. Some may work at computer centers. Workers may have flexible work schedules. Some staff may work in their homes, using the telephone to connect to the main computer in the office.

Computers can provide an electronic mail system. That is, a computer network can be used to write, send, and receive messages or letters. Instead of taking several days to send and receive mail, it can take only a few minutes.

Computerization will have several effects on libraries. There will be more centralized, shared cataloging systems, direct customer access to on-line terminals, and increased use of data bases for on-line searches. The on-line access to bibliographic data will change research and library sciences.

IMPACT ON WORKERS:

By 2010, librarians will no longer be cataloging in workrooms. This procedure will be replaced by using a computer in an office, in the library, or at home. Most librarians will work at home, locating the resources desired by a particular user or organization via remote terminals.

SKILLS AND COMPETENCIES:

Word processing skills and the ability to use data bases will be required.

WCIS OCCUPATIONS AFFECTED:

Developments in this work area are expected to have a

(4)

These are references for vocational programs that you first saw in occupation 1250A Public Relations Manager.

A description of school 304 is on the next page.

PROGRAMS
150-153

150 Marketing (2-year associate degree)

DESCRIPTION OF PROGRAM:
Marketing programs train individuals to work as buyers and sellers in wholesale or retail establishments. They need to determine whether various kinds of merchandise are available in sufficient quantity and have sufficient appeal to sell rapidly and profitably. Buyers/sellers assess merchandise quality, negotiate prices, set markup prices for resale, maintain stock, and help with ads.

COURSES:
Courses may include marketing theory, salesmanship, business math, layout and lettering, visual merchandising, advertising, business law, credit, and economics.

SCHOOLS OFFERING PROGRAM:
(Exact program description, courses, and/or title may differ for these schools.)
55 Stratton College-Milwaukee
190 Blackhawk Technical Institute-Janesville
192 Fox Valley Technical Institute-Appleton
193 Fox Valley Technical Institute-Oshkosh
194 Gateway Technical Institute-Kenosha
195 Gateway Technical Institute-Racine
196 Gateway Technical Institute-Elkhorn
197 Lakeshore Technical Institute-Cleveland
198 Mid-State Technical Institute-Wisconsin Rapids
206 Moraine Park Technical Institute-Fond du Lac
208 Moraine Park Technical Institute-West Bend
209 Nicolet College & Technical Institute-Rhinelander
210 North Central Technical Institute-Wausau
212 Northeast Wisconsin Technical Institute-Green Bay
213 Southwest Wisconsin Vocational Technical Institute-Fennimore
216 District One Technical Institute-Eau Claire
217 Madison Area Technical College-Madison
219 Madison Area Technical College-Watertown
221 Western Wisconsin Technical Institute-La Crosse
224 Wisconsin Indianhead Technical Institute-Rice Lake
225 Wisconsin Indianhead Technical Institute-Superior
229 Madison Area Technical College-Portage
230 Milwaukee Area Technical College-Mequon
231 Milwaukee Area Technical College-West Allis
272 Rochester Community College-Rochester MN
273 Inver Hills Community College-Inver Grove Heights MN
277 Bay de Noc Community College-Escanaba MI
278 Northeast Iowa Technical Institute-Peosta IA
298 Lakewood Community College-White Bear Lake MN
304 Normandale Community College-Bloomington MN

Descriptions of these schools are in the Education handbook under "schools - vocational"

151 Marketing-Communications (2-year associate degree)

DESCRIPTION OF PROGRAM:
Marketing-communications programs train workers to help customers prepare written and visual advertisement copy. They may take advertising orders, write copy, develop graphic display art, and handle billing and credit accounts.

COURSES:
Courses may include sales, marketing, advertising, graphics, copy writing, visual merchandising, business law, accounting, and advertising production techniques.

SCHOOLS OFFERING PROGRAM:
(Exact program description, courses, and/or title may differ for these schools.)
201 Milwaukee Area Technical College-Milwaukee
212 Northeast Wisconsin Technical Institute-Green Bay

152 Marketing-Fashion Merchandising (2-year associate degree)

DESCRIPTION OF PROGRAM:
Fashion merchandisers purchase clothing for retail in sufficient quantity and with sufficient appeal to sell rapidly and profitably. They assess merchandise quality, negotiate prices, set markup prices for resale, maintain stock, and help with advertising.

COURSES:
Courses may include marketing, design, advertising, salesmanship, fashion industries, business math, credit, clothing design and selection, and fashion planning, promotion, and coordination.

SCHOOLS OFFERING PROGRAM:
(Exact program description, courses, and/or title may differ for these schools.)
55 Stratton College-Milwaukee
190 Blackhawk Technical Institute-Janesville
192 Fox Valley Technical Institute-Appleton
194 Gateway Technical Institute-Kenosha
201 Milwaukee Area Technical College-Milwaukee
206 Moraine Park Technical Institute-Fond du Lac
212 Northeast Wisconsin Technical Institute-Green Bay
215 Southwest Wisconsin Vocational Technical Institute-Fennimore
216 District One Technical Institute-Eau Claire
217 Madison Area Technical College-Madison
221 Western Wisconsin Technical Institute-La Crosse
225 Wisconsin Indianhead Technical Institute-Superior
251 Patricia Stevens Career College and Finishing School-Milwaukee
272 Rochester Community College-Rochester MN
273 Inver Hills Community College-Inver Grove Heights MN
284 Dakota County AVTI-Rosemont MN
287 Duluth Vocational /Technical School-Duluth MN
288 Fashion Institute of America-Southfield MI
298 Lakewood Community College-White Bear Lake MN
306 Ray College of Design-Chicago IL

153 Marketing-Industrial (2-year assoc. degree)

DESCRIPTION OF PROGRAM:
Industrial marketing programs train individuals who specialize in transferring goods from manufacturers to wholesalers and distributors.

COURSES:
Courses may include marketing, economics, salesmanship, advertising, data processing, purchasing, and accounting.

SCHOOLS OFFERING PROGRAM:
(Exact program description, courses, and/or title may differ for these schools.)
190 Blackhawk Technical Institute-Janesville

(5)

SCHOOLS-VOCATIONAL

302-304

580 RELIGIOUS AFFILIATION
584 No religious affiliation
600 ADMISSIONS INFORMATION
606 Special tests other than SAT or ACT required
611 DEADLINES FOR FRESHMEN ENTERING IN THE FALL
616 No deadline
617 ACCREDITATION
621 Accredited by the Association of Independent Schools and Colleges
635 FINANCIAL AIDS
637 School offers Federal College Work Study Program
638 School offers the Pell Grant
639 School offers Supplemental Educational Opportunity Grant
640 School offers the Guaranteed Student Loan
641 School offers National Direct Student Loan
642 School offers PLUS Loan Program
643 School is approved for training of veterans, Title 38
730 CALENDAR PLAN OF SCHOOL
732 Quarter
880 PLACEMENT SERVICE
881 Placement service offered
890 TOTAL ENROLLMENT OF SCHOOL
894 Total enrollment 1000-4999
910 LOCATION OF SCHOOL
914 Region 4: La Crosse and Eau Claire Area
916 Region 6: Superior and Northwest Area

PROGRAMS OF STUDY
140 DISTRIBUTIVE EDUCATION
145 Fashion Retailing (1-yr. Diploma)
170 OFFICE EDUCATION
172 Accounting (2-yr. Assoc. Degree)
202 Administrative Asst/Secretarial (2-yr. Assoc. Degree)
214 Computer Programming
440 CONTINUING EDUCATION FOR SKILL UPGRADING OR JOB ENHANCEMENT
447 Business & Management
455 Electronics Technology

304 Normandale Community College
Bloomington

This is an example of a description of a school in a neighboring state that offers program 150 Marketing.

The schools write this part of the description.

GENERAL INFORMATION
Normandale Community College
Two-year Community College

Location:
9700 France Ave. S Bloomington, MN 55431
612-830-9300

Unique School Strengths (Provided by the School)
Normandale Community College is a state-supported community college and the largest of Minnesota's 18 community colleges. It enrolls more than 6,000 students, both in day and evening programs. The school offers the first two years of college for students planning to complete a bachelor's degree. These students complete the liberal arts (basic studies) requirements and the pre-major requirements necessary to enter their junior year of college. In addition, Normandale offers a variety of one or two year career programs that are designed to provide practical training and job placement upon completion of the program. The A.A., A.A.S., and A.S. degrees are granted.

Expected Tuition and Fees, 1984-85:
Full-time tuition is $1,102 per year. Cost is $24.50 per credit.

Further Information:
For further information, call or write the Admissions Office.

INSTITUTIONAL CHARACTERISTICS

350 TYPE OF SCHOOL
351 Public
371 PROGRAM LEADS TO:
374 Associate degree
580 RELIGIOUS AFFILIATION
584 No religious affiliation
585 RESIDENCE
588 Coeducational
591 Majority of student body commutes to campus
600 ADMISSIONS INFORMATION
601 No test required prior to admission
605 TOEFL (Test Of English/For Language) required for internat'l students
607 Credit may be given for post-secondary level work in high school
609 Freshmen admissible other than in fall
610 Transfer students admissible other than in fall
611 DEADLINES FOR FRESHMEN ENTERING IN THE FALL
613 Application after August 1 of the entrance year
617 ACCREDITATION
619 Accredited by the North Central Assoc of Colleges and Secondary Schools
631 Accredited by the National League for Nursing & the State Board of Nursing
632 Accredited by the Committee on Allied Health Education & Accreditation (CAHEA)
635 FINANCIAL AIDS
636 Special aids available to enrollees of certain departments/programs
637 School offers Federal College Work Study Program
638 School offers the Pell Grant
639 School offers Supplemental Educational Opportunity Grant
640 School offers the Guaranteed Student Loan
641 School offers National Direct Student Loan
642 School offers PLUS Loan Program
643 School is approved for training of veterans, Title 38
645 School offers Nursing Student Loan Program
648 Athletic scholarships available for men
649 Athletic scholarships available for women
650 Opportunities available for off-campus employment
653 School offers Indian Student Assistance Program
654 School offers Minnesota Educational Reciprocity Agreement
660 TRANSFER TO HIGHER EDUCATION PROGRAMS OR SCHOOLS
661 Half or more men graduates continue for higher education
662 Half or more women graduates continue for higher education
665 SPECIAL SERVICES FOR FOREIGN STUDENTS
667 Courses in English as a foreign language available
670 SPECIAL PROGRAMS AND OPTIONS FOR STUDY
671 Off-campus study
672 Independent study courses available
675 Internships
676 Short-Term workshops or conferences

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681 Interdisciplinary or interdepartmental courses of study available
690 ASSESSMENT OF PRIOR LEARNING
692 Departmental exams
694 CLEP (College Level Exam Program)
695 ACE (guide to evaluation of education experiences in military)
700 SERVICES AVAILABLE
701 Formal counseling service
702 Career assistance center for disadvantaged/handicapped
705 Study skills workshops
720 STUDENT AFFAIRS
721 Students share in decision-making of school policies/programs
722 Student government organization available
730 CALENDAR PLAN OF SCHOOL
732 Quarter
735 Summer session available
738 Student designs own schedule
745 CAMPUS ACTIVITIES
746 Band
747 Campus publications (newspapers, literary magazines, etc.)
748 Cheerleading
749 Choral groups
750 Cultural activities (concerts, plays, art exhibits etc.) available on campus
752 Debating
753 Drama
755 Occupational clubs
865 HANDICAPPED SERVICES AVAILABLE
866 Programs for hearing-impaired
867 Programs for deaf students
868 Programs for blind students
869 Programs for mobility-impaired students
870 No barriers to access to campus buildings for handicapped (in wheelchairs)
880 PLACEMENT SERVICE
881 Placement service offered
885 SPONSORSHIP
887 School not sponsored by union, association, or company
890 TOTAL ENROLLMENT OF SCHOOL
895 Total enrollment 5000-10,000
900 SIZE OF CITY IN WHICH SCHOOL IS LOCATED
902 In medium size city (30,000-250,000)
910 LOCATION OF SCHOOL
914 Region 4: La Crosse and Eau Claire Area
916 Region 6: Superior and Northwest Area

PROGRAMS OF STUDY
60 HEALTH OCCUPATIONS
64 Dental Assistant (1-yr. Diploma)
67 Dental Hygienist (2-yr. Assoc. Degree)
74 Medical Assistant (1-yr. Diploma)
78 Nursing-Technical, R.N. (2-yr. Assoc. Degree)
100 HOME ECONOMICS & CONSUMER EDUCATION
111 Dietetic Technician (2-yr. Assoc. Degree)
140 DISTRIBUTIVE EDUCATION
146 Hospitality Management (2-yr. Assoc. Degree)
147 Hotel/Motel Management (2-yr. Assoc. Degree)
150 Marketing (2-yr. Assoc. Degree)
167 Distributive Education, Other
195 Medical Office Mid-Management (2-yr. Assoc. Degree)
203 Secretarial Science-Legal (2-yr. Assoc. Degree)
204 Secretarial Science-Medical (2-yr. Assoc. Degree)
214 Computer Programming
220 TRADE AND INDUSTRIAL EDUCATION
263 Drafting-Mechanical (1-yr. Diploma)
337 Police Science (2-yr. Assoc. Degree)
363 Technical Engineering-Mechanical (2-yr. Assoc. Degree)
386 Manufacturing Engineering Technician (2-yr. Assoc. Degree)
390 MISCELLANEOUS PROGRAMS
391 College Parallel
430 DEVELOPMENTAL EDUCATION
432 General Educational Development (GED)
440 CONTINUING EDUCATION FOR SKILL UPGRADING OR JOB ENHANCEMENT
441 Accounting
442 Allied Health
447 Business & Management
448 Business & Office
449 Computer Technology
452 Counseling & Social Services
454 Education
458 Health
461 Labor & Industrial Relations
469 Real Estate
474 Visual & Performing Arts
475 Skill Upgrading or Job Enhancement, Other

ALTERNATIVE PROGRAMS
146 Hospitality Management (2-yr. Assoc. Degree)
147 Hotel/Motel Management (2-yr. Assoc. Degree)
150 Marketing (2-yr. Assoc. Degree)
167 Distributive Education, Other
214 Computer Programming
337 Police Science (2-yr. Assoc. Degree)

ATHLETICS-INTRAMURAL
773 Badminton
774 Baseball
775 Basketball
776 Bowling
780 Cross Country Skiing
782 Field Hockey
783 Football
786 Handball
788 Ice Hockey
792 Paddle Tennis
793 Raquetball
800 Soccer
801 Softball
806 Table Tennis
807 Tennis
809 Volleyball

ATHLETICS-INTERSCHOOL
823 Baseball
824 Basketball
832 Football
833 Golf

This is the reason this school was listed under program 150 - Marketing.

306 Ray College of Design Chicago

GENERAL INFORMATION
Ray College of Design
Private Two-year College

Location:
664 N. Michigan Ave. Chicago, IL 60611
312-280-3500

Unique School Strengths (Provided by the School)
Founded in 1916, Ray College of Design offers specialized programs preparing for employment in the advertising, design, and fashion industries. The Michigan Avenue Campus, located at 664 N. Michigan Ave., offers an Associate Degree of Aplied Science in Interior Design, Communication Design (with majors in Illustration Design, Advertising, Photography, Advertising Design, or Fashion Illustration), and Fashion Merchandising (with a minor in Fashion Display). The Woodfield Campus in Schaumburg offers Associate Degree

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PROGRAMS
615-630

1032 Purdue University-West LaFayette IN

616 American Indian Studies

DESCRIPTION OF PROGRAM:
American Indian studies programs explore the history, society, politics, culture, and economics of American Indians.

COURSES:
Courses may include general liberal arts courses, anthropology, American Indian languages and literature, economics, geography, history, music, political science, sociology, theater, and drama.

SCHOOLS OFFERING PROGRAM:
(Exact program description, courses, and/or title may differ for these schools.)
546 Northland College-Ashland
888 Augsburg College-Minneapolis MN
890 Bemidji State University-Bemidji MN
900 College of St Scholastica-Duluth MN
934 St Olaf College-Northfield MN
944 University of Minnesota-Twin Cities

617 Hispanic-American Studies

DESCRIPTION OF PROGRAM:
Hispanic-American studies programs explore the history, society, politics, culture, and economics of Hispanic-Americans.

COURSES:
Courses may include general liberal arts courses, anthropology, Spanish, comparative literature, economics, geography, history, music, political science, sociology, theater, and drama.

SCHOOLS OFFERING PROGRAM:
(Exact program description, courses, and/or title may differ for these schools.)
564 University of Wisconsin-Madison
934 St Olaf College-Northfield MN
944 University of Minnesota-Twin Cities
1032 Indiana University-Bloomington IN

618 Jewish Studies

DESCRIPTION OF PROGRAM:
Jewish studies programs explore the history, society, politics, culture, and economics of the Jewish people.

COURSES:
Courses may include general liberal arts courses, anthropology, Hebrew language and literature, economics, geography, history, music, political science, sociology, theater, and drama.

SCHOOLS OFFERING PROGRAM:
(Exact program description, courses, and/or title may differ for these schools.)
564 University of Wisconsin-Madison
566 University of Wisconsin-Milwaukee
638 DePaul University-Chicago IL
870 University of Michigan-Ann Arbor MI
914 Hamline College-St Paul MN
944 University of Minnesota-Twin Cities
1032 Indiana University-Bloomington IN

619 Ethnic and Area Studies, Other

DESCRIPTION OF PROGRAM:
Those ethnic and area studies programs not discussed elsewhere are included here.

SCHOOLS OFFERING PROGRAM:
(Exact program description, courses, and/or title may differ for these schools.)
916 Macalester College-St Paul MN
934 St Olaf College-Northfield MN

630 Business and Management

DESCRIPTION OF PROGRAM:
Business and management programs explore disciples that prepare individuals for activities in planning, organizing, directing, and controlling business office systems and procedures.

SCHOOLS OFFERING PROGRAM:
(Exact program description, courses, and/or title may differ for these schools.)
504 Alverno College-Milwaukee
508 Beloit College-Beloit
510 Cardinal Stritch College-Milwaukee
512 Carroll College-Waukesha
514 Carthage College-Kenosha
516 Concordia College-Milwaukee
518 Edgewood College-Madison
524 Lakeland College-Sheboygan
530 Marian College-Fond du Lac
532 Marquette University-Milwaukee
536 Milwaukee School of Engineering-Milwaukee
540 Mount Mary College-Milwaukee
542 Mount Senario College-Ladysmith
544 Nicolet College & Technological Institute-Rhinelander
546 Northland College-Ashland
548 Ripon College-Ripon
550 Saint Norbert College-De Pere
552 Silver Lake College-Manitowoc
554 Stratton College-Milwaukee
556 University of Wisconsin-Eau Claire
560 University of Wisconsin-Green Bay
562 University of Wisconsin-La Crosse
564 University of Wisconsin-Madison
566 University of Wisconsin-Milwaukee
568 University of Wisconsin-Oshkosh
570 University of Wisconsin-Parkside-Kenosha
572 University of Wisconsin-Platteville
574 University of Wisconsin-River Falls
576 University of Wisconsin-Stevens Point
578 University of Wisconsin-Stout-Menomonie
580 University of Wisconsin-Superior
582 University of Wisconsin-Whitewater
584 UW Center-Baraboo
586 UW Center Barron County-Rice Lake
588 UW Center-Fond du Lac
590 UW Center-Fox Valley-Menasha
592 UW Center-Manitowoc County-Manitowoc
594 UW Center-Marathon County-Wausau
596 UW Center-Marinette
598 UW Center-Marshfield/Wood County
600 UW Center-Richland
602 UW Center-Rock County-Janesville
604 UW Center-Sheboygan County-Sheboygan
606 UW Center-Washington County-West Bend
608 UW Center-Waukesha County-Waukesha
610 Viterbo College-LaCrosse
614 Wisconsin Lutheran College-Milwaukee
636 Concordia College-River Forest IL
638 DePaul University-Chicago IL
654 Illinois Institute of Technology-Chicago IL
672 Lake Forest College-Lake Forest
676 Loyola University-Chicago
688 Mundelein College-Chicago
698 Northern Illinois University-DeKalb IL
704 Parks College of St Louis University-Cahokia IL
710 Rockford College-Rockford IL
732 University of Illinois-Urbana-Champaign IL
736 Wheaton College-Wheaton IL

This college program of study was referenced from occupations 1240 and 1250A on the first page.

We'll see a description of Alverno College in a few pages.

Descriptions of these colleges are in the Education Handbook under "schools—colleges."

748 Clarke College-Dubuque IA
750 Coe College-Cedar Rapids
770 Loras College-Dubuque IA
772 Luther College-Decorah IA
786 University of Dubuque-Dubuque IA
788 University of Iowa-Iowa City IA
792 Wartburg College-Waverly IA
820 GMI Engineering and Management Institute-Flint MI
848 Michigan State University-East Lansing MI
850 Michigan Technological University-Houghton MI
854 Northern Michigan University-Marquette MI
856 Northwood Institute-Midland MI
870 University of Michigan-Ann Arbor MI
888 Augsburg College-Minneapolis MN
890 Bemidji State University-Bemidji MN
892 Bethel College-St Paul MN
896 The College of St Catherine-St Paul MN
900 College of St Scholastica-Duluth MN
902 College of Saint Teresa-Winona MN
904 College of Saint Thomas-St Paul MN
908 Concordia College-St Paul MN
912 Gustavus Adolphus College-St Peter MN
914 Hamline College-St Paul MN
916 Macalester College-St Paul MN
926 Northwestern College-Roseville MN
932 St Mary's College-Winona
940 University of Minnesota-Duluth
944 University of Minnesota-Twin Cities
946 Winona State University-Winona MN
1032 Indiana University-Bloomington IN
1052 Purdue University-West LaFayette IN
1068 University of Notre Dame-Notre Dame IN

This college program of study was referenced from Occupation 1240 – Purchasing Managers

631 Business & Management, General

DESCRIPTION OF PROGRAM:
Business and general management programs study the processes of purchasing, selling, and producing goods, commodities, and services as well as principles of good organization which help in gaining a profit.

COURSES:
Course work may include accounting, finance, marketing, economics, management, and business organizations.

SCHOOLS OFFERING PROGRAM:
(Exact program description, courses, and/or title may differ for these schools.)
504 Alverno College-Milwaukee
508 Beloit College-Beloit
510 Cardinal Stritch College-Milwaukee
512 Carroll College-Waukesha
516 Concordia College-Milwaukee
518 Edgewood College-Madison
530 Marian College-Fond du Lac
532 Marquette University-Milwaukee
540 Mount Mary College-Milwaukee
542 Mount Senario College-Ladysmith
546 Northland College-Ashland
548 Ripon College-Ripon
550 Saint Norbert College-De Pere
552 Silver Lake College-Manitowoc
554 Stratton College-Milwaukee
556 University of Wisconsin-Eau Claire
560 University of Wisconsin-Green Bay
562 University of Wisconsin-La Crosse
564 University of Wisconsin-Madison
566 University of Wisconsin-Milwaukee
568 University of Wisconsin-Oshkosh
572 University of Wisconsin-Platteville
580 University of Wisconsin-Superior
582 University of Wisconsin-Whitewater
610 Viterbo College-LaCrosse
614 Wisconsin Lutheran College-Milwaukee
636 Concordia College-River Forest IL
654 Illinois Institute of Technology-Chicago IL
672 Lake Forest College-Lake Forest
688 Mundelein College-Chicago
698 Northern Illinois University-DeKalb IL
704 Parks College of St Louis University-Cahokia IL
748 Clarke College-Dubuque IA
770 Loras College-Dubuque IA
772 Luther College-Decorah IA
786 University of Dubuque-Dubuque IA
788 University of Iowa-Iowa City IA
850 Michigan Technological University-Houghton MI
888 Augsburg College-Minneapolis MN
890 Bemidji State University-Bemidji MN
892 Bethel College-St Paul MN
898 The College of St Catherine-St Paul MN
902 College of Saint Teresa-Winona MN
904 College of Saint Thomas-St Paul MN
912 Gustavus Adolphus College-St Peter MN
926 Northwestern College-Roseville MN
932 St Mary's College-Winona
946 Winona State University-Winona MN
1052 Purdue University-West LaFayette IN

632 Accounting

DESCRIPTION OF PROGRAM:
Accounting programs study the principles, procedures, and theory of organizing, maintaining, and auditing business activities.

COURSES:
Accounting majors take courses in finance and accounting, economics, and management. Graduates may wish to go on to take the Certified Public Accountant's examination.

SCHOOLS OFFERING PROGRAM:
(Exact program description, courses, and/or title may differ for these schools.)
512 Carroll College-Waukesha
514 Carthage College-Kenosha
516 Concordia College-Milwaukee
518 Edgewood College-Madison
524 Lakeland College-Sheboygan
532 Marquette University-Milwaukee
540 Mount Mary College-Milwaukee
542 Mount Senario College-Ladysmith
546 Northland College-Ashland
550 Saint Norbert College-De Pere
552 Silver Lake College-Manitowoc
554 Stratton College-Milwaukee
556 University of Wisconsin-Eau Claire
560 University of Wisconsin-Green Bay
562 University of Wisconsin-La Crosse
564 University of Wisconsin-Madison
566 University of Wisconsin-Milwaukee
568 University of Wisconsin-Oshkosh
570 University of Wisconsin-Parkside-Kenosha
572 University of Wisconsin-Platteville
574 University of Wisconsin-River Falls
576 University of Wisconsin-Stevens Point
580 University of Wisconsin-Superior
582 University of Wisconsin-Whitewater
610 Viterbo College-LaCrosse
614 Wisconsin Lutheran College-Milwaukee
638 DePaul University-Chicago IL
676 Loyola University-Chicago
688 Mundelein College-Chicago
698 Northern Illinois University-DeKalb IL
710 Rockford College-Rockford IL
732 University of Illinois-Urbana-Champaign IL
748 Clarke College-Dubuque IA
770 Loras College-Dubuque IA
772 Luther College-Decorah IA
786 University of Dubuque-Dubuque IA
788 University of Iowa-Iowa City IA
792 Wartburg College-Waverly IA
848 Michigan State University-East Lansing MI
850 Michigan Technological University-Houghton MI

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Here's a sample private college description referenced from program 630 — Business & Management

504 Alverno College
Milwaukee

GENERAL INFORMATION
Alverno College
Private college

State:
Wisconsin

Location:
3401 S. 39th Street
Milwaukee, WI 53215
414-647-3700

Summary Information
Tuition and Fees
In-state: $4,668
Out-of-state: $4,668
Room and Board: $2,000
Fall Application Deadline: 8/1
Tests Required for Admission: ACT, TOEFL
Approximate Median Scores of Entering Freshmen
ACT Composite: 18
Percentage of Freshmen from Top Fifth of High School Class: 5

Unique School Strengths (Provided by the School)
Alverno College is a private college for women whose specialties include career orientation via off-campus internships, assessment of student performance by professionals, extensive career counseling and lab facilities. In addition to the focus on course content, the college stresses development of abilities allowing for personal and professional growth. The major and minor areas of study are completed within a liberal arts curriculum which allows for greater flexibility.

Further Information:
For further information, write or call (collect) the director of admissions at the above address.

INSTITUTIONAL CHARACTERISTICS
10 LOCATION OF SCHOOL
12 Region 2: Milwaukee and Southeast Area
70 SIZE OF CITY OR TOWN IN WHICH COLLEGE IS LOCATED
72 Located in a large city (over 500,000)
80 UNDERGRADUATE ENROLLMENT
83 Between 1,000-1,499
90 All women
95 CONTROL
97 Private control
100 RELIGIOUS AFFILIATION
101 No religious affiliation
110 ADMISSION INFORMATION (prior to admission)
114 ACT is required
115 Test of English as a foreign language (TOEFL) required for international students
118 Qualified students admitted after completion of junior year of high school (early admissions)
119 Credit may be granted for college-level work completed in H.S.
120 Transfer credit granted for previous college work
122 Freshmen admitted other than in the fall
123 Transfer students admitted
124 Transfer students admitted other than in the fall
125 Early decision plan available
126 Admissions decisions made on a rolling basis
130 College seeks geographically diverse student body
131 College seeks ethnically diverse student body
134 APPLICATION DEADLINE (For freshmen entering in the fall)
137 Between May 2 and August 1 of the year of entrance
140 CALENDAR PLAN OF THE COLLEGE
141 Semester
145 Summer session available
160 ACCREDITATION
161 Accredited by one of the COPA regional organizations
170 TYPE OF INSTITUTION
172 Liberal arts college
185 College also offers associate degrees
200 RESIDENCE POLICIES
203 Residential facilities for women available on campus
206 Resident freshmen allowed auto on/near campus
300 FINANCIAL AID
301 Offers Federal College Work-Study Program
302 Offers Pell Grants)
303 Offers Supplemental Educational Opportunity Grants Program
304 Offers Federal Guaranteed Loan Program
305 Offers Federal National Direct Student Loan Program
306 Offers PLUS Loan Program
310 Scholarship funds available specifically for black students
311 No athletic scholarships available for men
314 Off-campus employment available
315 Offers financial aid to American Indian students
319 Other financial aid available
320 ACADEMIC CHARACTERISTICS OF THE STUDENT BODY
344 Median ACT Comp between 17-20
350 FRESHMEN ATTRITION
351 Over 60% of freshman returned for a second year
355 FACULTY
356 More than 50% of the faculty hold the doctorate degree
357 More than 75% of the faculty hold masters or doctorate degree
360 SPECIAL PROGRAMS AND OPTIONS FOR STUDY
361 Pre-medical program
362 Pre-dental program
363 Pre-law program
365 Independent study courses available
366 Interdisciplinary or interdepartmental courses of study
368 Pass/fail grade option
370 Remedial or tutorial programs
379 Off-campus study
381 Seminars
383 Internships
384 Short term workshops or conferences
390 SERVICES AVAILABLE
391 Formal counseling services
392 Foreign student advisors
398 Services for mobility impaired students
399 Installment plan available for payment of fees
400 Career assistance center for disadvantaged/handicapped
402 Day care facilities available
403 Health services available
404 Study skills workshops
410 ASSESSMENT OF PRIOR LEARNING
412 Departmental exams
414 CLEP (College Level Exam Program)
425 CAMPUS LIFE
426 Students share in decision-making
427 Cultural activities available on campus
428 Cultural activities available off campus
435 RELIGIOUS SERVICES
436 Protestant services available on or near campus
437 Roman Catholic services available on or near campus
438 Jewish services available on or near campus
440 CAMPUS ACTIVITIES

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442 Campus publications (newspaper, literary magazine)
444 Choral groups
446 Drama
447 Modern dance
449 Orchestra
451 Political organizations
455 Social service organizations
456 Student government
459 Other campus activities available
1250 NATIONAL CHARACTERISTICS
1260 ENROLLMENT
1261 Under 1,500 enrollment
1270 AREA/COMMUNITY SIZE
1274 Outside central city of large metropolitan area
1280 AFFILIATION/CONTROL
1282 Private control, not religious
1290 LEVEL OF DEGREE OFFERED
1291 Bachelor's degree only
1295 COMPETITIVENESS OF SCHOOL
1299 Lower competition, or open admissions
1300 PERCENTAGE OF FRESHMEN GRADUATING
1302 50-65% graduate
1305 PERCENT OF STUDENTS ATTENDING GRADUATE SCHOOL
1308 15-25% go into graduate studies
1310 REGULATIONS OF THE SCHOOL
1311 Classroom attendance may be required
1320 PERCENTAGE LIVING ON CAMPUS
1323 Under 25% live on campus
1325 PERCENTAGE FROM OUT OF STATE
1328 Under 25% from out-of-state
1330 PERCENTAGE OF STUDENTS WORKING WHILE IN SCHOOL
1332 25-75% work

PROGRAMS OF STUDY
630 BUSINESS AND MANAGEMENT
631 Business and Management, General
700 COMMUNICATIONS
701 Communications, General
703 Communications Technology
707 Public Relations
709 Communications, Other
720 COMPUTER AND INFORMATION SCIENCES
721 Computer and Information Sciences, General
740 EDUCATION
742 Elementary Education
744 Secondary Education
745 Adult and Continuing Education
756 Pre-School or Kindergarten Education
760 CERTIFICATION, SPECIFIC SUBJECT AREAS
762 Art Education
763 Business Education
773 Music Education
775 Reading Education
780 Specific Subject Areas, Other
790 ENGINEERING
801 Electrical, Electronics, and Communications Engineering
809 Mechanical Engineering
860 ALLIED HEALTH
861 Art Therapy
871 Music Therapy
872 Nuclear Medical Technology
890 HEALTH SCIENCES
892 Medical Laboratory Technologies
894 Nursing, General
899 Pre-Dentistry
900 Pre-Medicine
901 Pre-Veterinary
920 LAW
921 Pre-Law
930 LETTERS (HUMANITIES)
931 Letters and Humanities, General
935 English, General
960 LIFE SCIENCES
961 Biology, General
990 MATHEMATICS
991 Mathematics, General
1010 MULTI-DISCIPLINARY STUDIES
1011 Biological and Physical Sciences
1013 Humanities and Social Sciences
1014 Liberal/General Studies
1030 PHILOSOPHY AND RELIGION
1031 Philosophy
1032 Religion
1040 THEOLOGY
1042 Religious Education
1043 Religious Music
1050 PHYSICAL SCIENCES
1051 Physical Sciences, General
1055 Chemistry, General
1100 PSYCHOLOGY
1101 Psychology, General
1130 SOCIAL SCIENCES
1138 History
1142 Sociology
1144 Social Sciences, Other
1150 VISUAL AND PERFORMING ARTS
1151 Visual and Performing Arts, General
1162 Fine Arts, General
1164 Drawing
1165 Music, General
1168 Music Performance
1170 Music Theory and Composition
1190 CONTINUING EDUCATION FOR SKILL UPGRADING OR JOB ENHANCEMENT
1197 Business & Managment
1199 Computer Technology
1204 Education
1208 Health
1216 Personal Services
1220 Recreation Resources
1223 Visual & Performing Arts
1224 Skill Upgrading or Job Enhancement, Other

ALTERNATIVE PROGRAMS
631 Business and Management, General
701 Communications, General
721 Computer and Information Sciences, General
894 Nursing, General

ATHLETICS-INTRAMURAL
473 Cross-Country skiing
478 Golf
496 Softball
503 Volleyball

Alverno was included in the list of colleges offering Program 630 because of this.

506 Bellin College of Nursing
Green Bay

GENERAL INFORMATION
Bellin College of Nursing
Private College

State:
Wisconsin

Location:
929 Cass Street
Green Bay, WI 54301
414-433-3560

Summary Information
Tuition and Fees
In-state: $3,600
Out-of-state: $3,600
Fall Application Deadline: 1/15
Tests Required for Admission: ACT

Approximate Median Scores of Entering Freshmen
ACT Composite: 22

Unique School Strengths (Provided by the School)
Bellin College of Nursing provides a unique program of studies leading to a Bachelor of Science in Nursing. The

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this is a sample of a college offering a specialized program. It has a different format because we receive these descriptions from Orchard House, Inc.

NATIONAL-COLLEGE 1322

These colleges are in the "National College" section of the Education Handbook and precede "Careers Resources."

Philadelphia College of the Performing Arts

Philadelphia, Pennsylvania 19102
Telephone: 215 893-3100
Director of Admissions: Edward T. Brake, M.S.
Telephone: 215 893-3174
Private college established 1870 as a coed institution.
40% of students from out of state; 6% from out of country.

173 Men
210 Women
Total enrollment (includes grad. and part-time): 428
SAT & FAF # 2665

ADMISSIONS

Requirements
Graduation from secondary school required.
ACT 101 for students not normally admissible.
SAT or ACT required.
Campus visit and interview recommended. Off-campus interviews held.
Entrance audition required of all applicants.
Admission may be deferred.
Application fee $30; not refundable.

Basis for Candidate Selection

Academic:	Secondary school record SAT or ACT scores Class rank School's recommendation
Other:	Particular talent or ability is emphasized Character and personality are important Extracurricular participation and geographical distribution are considered

Admission Procedure
Normal sequence:
Take SAT or ACT by December 1 of 12th year.
Suggest filing application by March 1 of 12th year; no deadline.
Notification of admission on rolling basis.
Candidate must accept offer and pay $100 tuition deposit and $100 room deposit, both nonrefundable, by May 1.

College has *Early Decision* Program:
Take tests by October 1 of 12th year. Apply by December 1. Applicant may apply to other colleges.

College has *Early Entrance* and *Concurrent Enrollment*.

College does not participate in College Board *Advanced Placement* Program. College grants placement on basis of exams in theory, musicianship, piano, and English.

Transfer students admitted to both semesters; 20% of all new students were transfers into all classes in fall 1984.

Experience
Composition of student body (1984-85):

Asian	1%
Black	20%
Hispanic	3%
Native American	1%
White	75%

Average age of undergraduates is 20.

FINANCIAL

Expenses
Tuition (1985-86): $6,500 per year.
Room: $2,100.
No meal plan.
Required fees total $50.
Books and personal expenses (school's estimate): $300 to $500.

Financial Aid
College participates in College Board College Scholarship Service. ACT Financial Aid Services, and uses PHEAA. Aid was offered to 85% of undergraduate aid applicants (1984-85).
Scholarships and grants:
Range from $200 to $3,800 per year.
Scholarships/grants totaling $250,000 granted (1984-85).
File FAF/FFS by March 1; college aid application deadline is on rolling basis.
Notification of awards on rolling basis.
Pell Grants, SEOG; college and private scholarships, state, college, and private grants.
Loans:
Range from $500 to $2,500 per year.
Loans granted to 89% of undergraduate aid applicants (1984-85).
Application deadline on rolling basis.
NDSL, PLUS, GSL; state loans; Tuition Plan Inc.; Academic Management Service.

ACADEMIC

Accredited by MSACS, professionally by National Association of Schools of Music.

Faculty
Instructional Staff: 22 full-time, 89 part-time.

Doctors	20%	Masters	70%
Bachelors	5%	Other	5%

Student-faculty ratio: 8 to 1.

Curriculum
Degrees offered: B.Mus., B.Mus.Ed., B.F.A., B.F.A. in Dance Education.
Majors offered:
Acting
Dance
Ballet
Jazz
Modern
Dance Education
Directing (Acting and Theatre)
Jazz/Commercial Music
Music Education
Musical Instruments
Theory/Composition
Voice/Opera

General education requirements. Dual degrees possible. Independent study. Pass/fail grading option. Internships. Elementary and secondary education certification. Undergraduates may not take graduate courses. Computer center. Library of 18,000 volumes and 120 periodical subscriptions.

Academic Experience
30% of freshmen drop out for academic reasons.

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[CAREER RESOURCES] 169-176

These are books and A-V Materials that can be used in Curriculum Planning.

part of the process, and that women need to deal with these components without taking them personally. Ways to overcome feeling uncomfortable in negotiating for higher pay are covered.

ORDERING INFORMATION:
Price: $695.

170 JOBS AND EMPLOYMENT OPPORTUNITIES

PUBLISHER/DISTRIBUTOR:
Cambridge Book Company
Adult Education Department
888 Seventh Avenue
New York, NY 10106

RESOURCE DESCRIPTION:
This series includes 8 15-minute color video programs and 50 student video texts about life skills in the world of work. Some of the issues covered are: good and bad job habits, how to get unemployment insurance, how to act in a job interview, obtaining job training, legal remedies for discrimination, how problems at work affect the family, and matching skills to jobs.

ORDERING INFORMATION:
The series price is $1,070.00, number JAC323.

171 CAREER EXPLORATION SERIES

PUBLISHER/DISTRIBUTOR:
Career Aids, Inc.
9850 Lurline Ave., Dept. V14
Chatsworth, CA 91311

RESOURCE DESCRIPTION:
This color filmstrip and cassette series presents 110 vocational and paraprofessional occupations, each designated by the U.S. Office of Education as offering high placement opportunities. These are categorized into 22 career clusters for easy reference, and each segment includes a film overview of the general field and five films on specific jobs within the field. Interest inventory sheets are provided for students along with evaluation sheets for teachers.

ORDERING INFORMATION:
The complete kit of 22 clusters includes a comprehensive guidebook and other helpful materials for $1,758.90. (Number AX-CE). Additional and the price of seperate clusters is available.

172 PACEMAKER VOCATIONAL READERS

PUBLISHER/DISTRIBUTOR:
Career Aids, Inc.
8950 Lurline Ave., Dept. V14
Chatsworth, CA 91311

RESOURCE DESCRIPTION:
These are career oriented books for students with severe reading disabilities. Career opportunities in 10 occupations requiring little or no reading skill, and which special needs students have demonstrated they can succeed in, are presented. Each reader combines a high interest level (grades 7-12) and a reading level below grade 3 with photographs used liberally. Tape cassettes are also available which contain word for-word transcripts of the fictional stories about each occupation. Students can follow the texts on each of the 64-page books, developing both speed and comprehension.

ORDERING INFORMATION:
The set of ten readers is $109.50, number FE 72627. The set of reader cassettes is $42.00, number FE 72636.

173 CAREERS WITHOUT COLLEGE

PUBLISHER/DISTRIBUTOR:
Career Aids, Inc.
8950 Lurline Ave., Dept. V14
Chatsworth, CA 91311

RESOURCE DESCRIPTION:
This program highlights eight rewarding vocational fields which do not require a college degree. Each job segment consists of two 20-minute cassettes: one describes the job, its duties, responsibilities, and rewards; and the other cassette deals with the aptitude, skills, and training required for that particular position. The careers examined are paramedic (CX500), broadcast technician (CX501), secretary (CX502), computer programmer (CX503), beautician (CX504), dental hygienist (CX505), automotive mechanic (CX506), and paraprofessional teacher (CX507). The cassettes include lively, "on-the-job" interviews with actual workers who describe the jobs, how they found them, and the type of preparation and training they received.

ORDERING INFORMATION:
Each program is $20.00 and the entire series of 16 cassettes (CXWAP) is $145.00.

174 RESOURCES FOR CAREER DEVELOPMENT: AN ANNOTATED BIBLIOGRAPHY

Here's a sample career resource!

PUBLISHER/DISTRIBUTOR:
Indiana Career Resource Center
1209 S. Greenlawn Ave.
South Bend, IN 46615 (1979)

Where to order

RESOURCE DESCRIPTION:
This document presents approximately 650 annotated and categorized listings. Included in this publication are a guide to use of the bibliography, Content-At-A-Glance charts, annotated references to printed materials, games and simulations, film and cassette media, and test instruments. A partial listing of publishers and sources of career development materials is also included.

description

ORDERING INFORMATION:
Price per copy: $8.00

cost, if any.

176 I CAN BE ANYTHING

AUTHOR:
Joyce S. Mitchell

PUBLISHER/DISTRIBUTOR:
The College Board
888 Seventh Ave.
New York, NY 10019 (1978)

RESOURCE DESCRIPTION:
This book describes more than 100 careers for young women and introduces the crucial consideration of a life style for girls and women. Seven related questions analyze each career. They are: what the work is like, what education is needed, how many women are now in the field, what the salaries are like, future prospects for women, which colleges award the most degrees to women, and where to obtain further information. Many photos of female workers illustrate the entire book.

-Philadelphia College of the Peforming Arts (PA)-

Guidance Facilities/Student Services
Academic counseling. Tutoring, remedial learning services. Health service. Minority, handicapped, and veteran student counseling. Birth control/abortion counseling. Personal and psychological counseling. Career counseling, placement service.

Physical Education
No requirement.

Religious and Convocation Requirements
None.

EXTRACURRICULAR ACTIVITIES

Athletics
No intercollegiate or intramural competition.

Other Student Activities
No social fraternities or sororities.
Student government. Dance, music, and theatre groups and activities.

REGULATIONS

Housing
Freshmen are required to live on campus.
Coed dormitories.
25% of students live on campus.

Automobiles
All students may have cars on campus.

Other
Alcohol not allowed.
Class attendance required.

GENERAL

Environment
Urban campus in Philadelphia (population: 2,000,000). City served by air, bus, rail.

Calendar
Semester system; classes begin September 9, 1985.
Freshman orientation in September.

(14)

Appendix B

Wisconsin Developmental Guidance Model

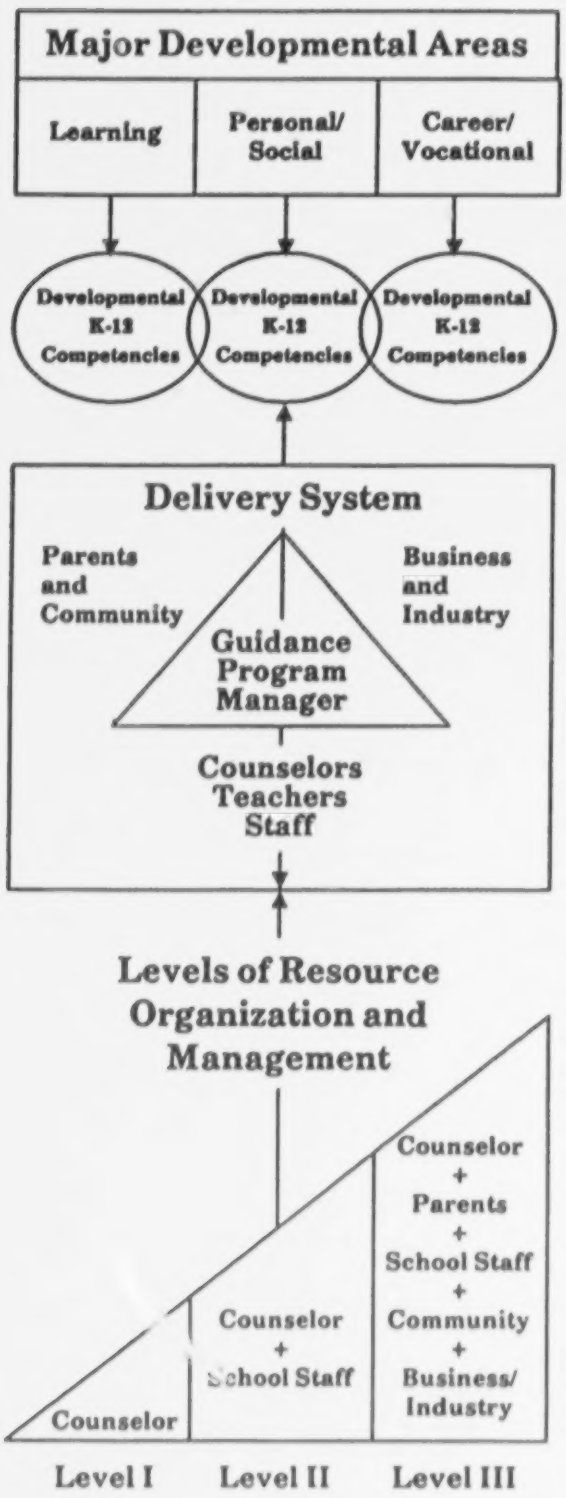
The following is a condensed review of the **Wisconsin Developmental Guidance Model.** It shows the primary relationship between the Model and the use of Labor Market Information and related resources available through WCIS and other sources identified in this handbook. A complete Developmental Guidance Model publication is available from the Department of Public Instruction. For purposes of linking the Developmental Guidance Competency to labor market information, we have only presented the career/vocational portions of the model.

Developmental guidance, as a comprehensive K–12 program, is based on the belief that all children in all schools should participate in activities and instruction that will assist their optimal personal/social, career/vocational, and learning development. Developmental guidance differs from school guidance as we know it today in that it is a specific, preventive program. It has definite goals and objectives that use the counselor's skills and training in the classroom as an additional delivery point. It also involves the entire school staff to reach all children, in addition to those in difficulty or crisis.

Developmental guidance is based on the concept that, as all children mature, they pass through identifiable developmental stages that are vital to their growth as individuals. These stages can be anticipated. Thus, guidance activities can facilitate healthy development of these needs before they become problems. In this manner, children will be equipped to successfully deal with the process of personal/social development, career/vocational development, and learning development as they mature.

This systematic approach, called Wisconsin Developmental Guidance Model (WDGM) is based on the work of Havighurst, Maslow, Erickson, Piaget, and others. It recognises that all pupils pass through specific developmental stages as they mature. What happens or fails to happen to children/adolescents developmentally will determine life-long attitudes toward learning; assist or deter the acquisition of skills, the attainment of career goals, and the evolution of satisfactory attitudes toward self, society, family, and career. Knowing this, school guidance programs in Wisconsin must anticipate the personal/social, career/vocational, and learning needs of pupils. These must be addressed at each grade level and be structured to ensure that these needs are met. Such an approach stresses the prevention of problems by providing students with age appropriate skills and information through instruction, group interaction, and individual counseling. All should be coordinated through the guidance program.

Guidance as an articulated program is the major responsibility of school counselors trained to meet the developmental needs of the maturing child. That training enables school counselors to have the knowledge and skills necessary to provide the unique service of counseling and to facilitate the systematic delivery of a planned program that will assist all pupils in their development regardless of race, sex, exceptional educational needs, economic status, or size and location of school.



How the WDGM Works

Major Developmental Areas. The WDGM focuses on three major areas of student development: *Learning, Personal/Social,* and *Career/ Vocational.* These are the types of functional life competencies each person must attain in order to learn, achieve academic success, and prepare for a satisfying and productive career (see graphic at left).

Developmental Student Competencies. Specific student competencies are listed under each major developmental area. The competencies represent basic skills each person should master in order to deal effectively with daily life situations. The competencies are listed across age and grade levels and are consistent with children's general physical and intellectual capabilities at various stages.

Delivery System. The WDGM incorporates counselors, parents, school staff, community members, and business/industry/labor representatives into a guidance program delivery system. The WDGM suggests that the school district guidance program manager organize district resources to address the greatest number of student needs. Guidance program organization and management strategies will be elaborated upon throughout the WDGM.

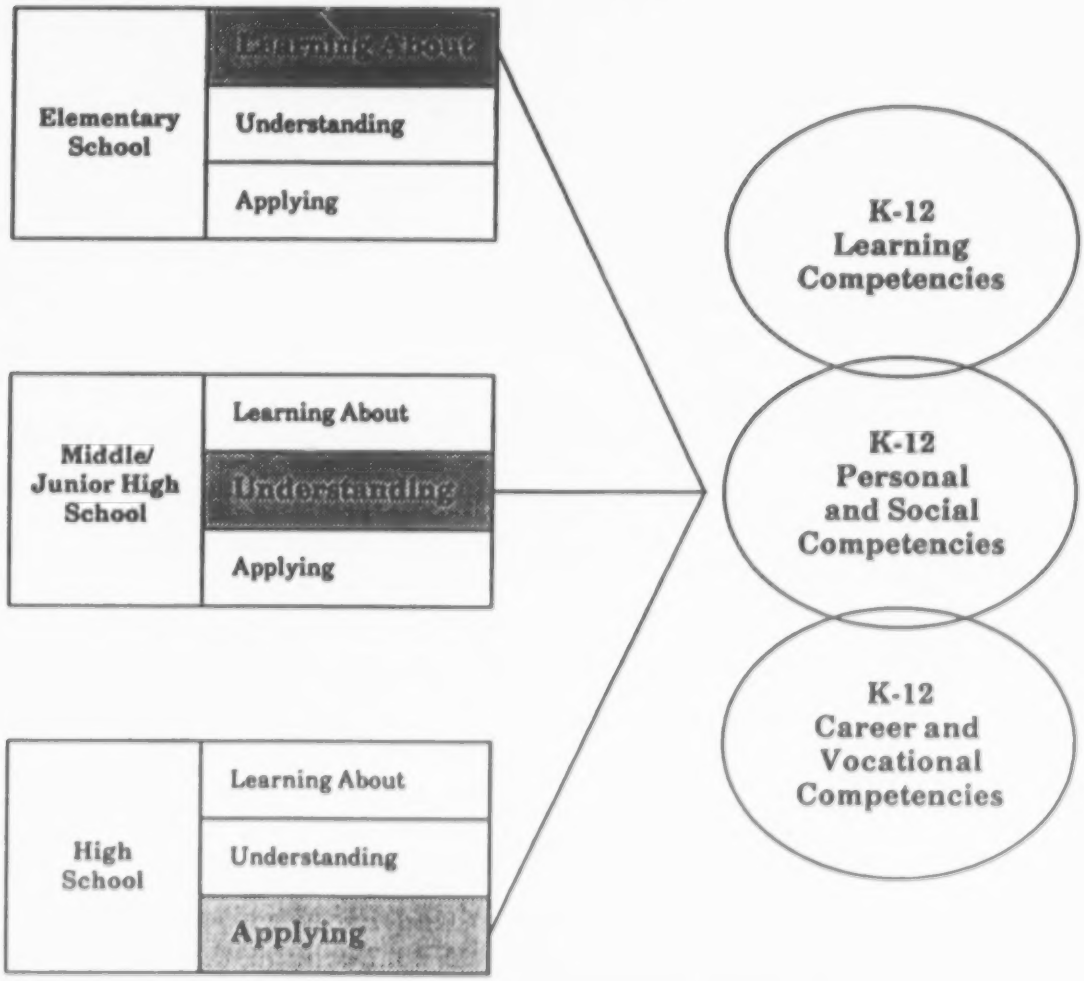
Resource Organization and Management. Research and experience suggest that developmental guidance is more functional or less functional as levels of resource organization and management rise or fall. Programs in which the counselor is the sole resource provider may be limited. Guidance programs which involve a variety of school staff as well as community/ business/labor/industry members are able to more efficiently help students attain skills and competencies. The key to a successful program is organization and management of guidance providers best suited to assist students in achieving life skills and competencies. It is important to note that the levels of resource organization and management described in the WDGM are cumulative.

K-12 Developmental Competencies

Developmental guidance is based on the premise that, as all children mature, they pass through various developmental stages vital to their growth. During these stages, specific kinds of learning and development must occur to ensure optimal progress.

The WDGM provides a developmentally based delivery structure that spans the K-12 years and matches student competencies that must be mastered with the delivery systems most appropriate for age- or grade-level groups. Elementary school children respond well to situations in which they *Learn About* and become aware of new things and ideas. They also need opportunities to explore what they are learning and to try out new things. Middle/junior high school-aged children are ready for *Understanding* and experimentation as they continue to absorb new facts and ideas. High school students need to *Apply* what they have previously learned and to constantly move toward increased understanding and additional knowledge.

Developmental Student Competencies



Elementary School Student Competencies

	Learning About
Elementary School	Understanding
	Applying

Learning

- Understand the school environment and what is expected of students.
- Understand strengths, abilities, and how to learn most effectively.
- Understand relationships among ability, effort, and the quality of school achievement.
- Understand how to assess learning needs and where and when to seek help.
- Understand the process of setting meaningful school achievement goals.

Personal/Social

- Exhibit conflict-resolution skills with adults and peers.
- Exhibit respect for individual freedoms and rights of self and others.
- Understand the consequences of actions for self and others.
- Understand the influence that physical, emotional, and intellectual behaviors have on one another.
- Be aware of own emotional, physical, and intellectual development.
- Learn to communicate with peers and adults in various home, school, and community settings.
- Exhibit positive attitudes toward school, family, and self.
- Understand the concept of ongoing change in school, home, and community lives.
- Understand and respect differences among people's cultures, lifestyles, attitudes, and abilities.

Career/Vocational

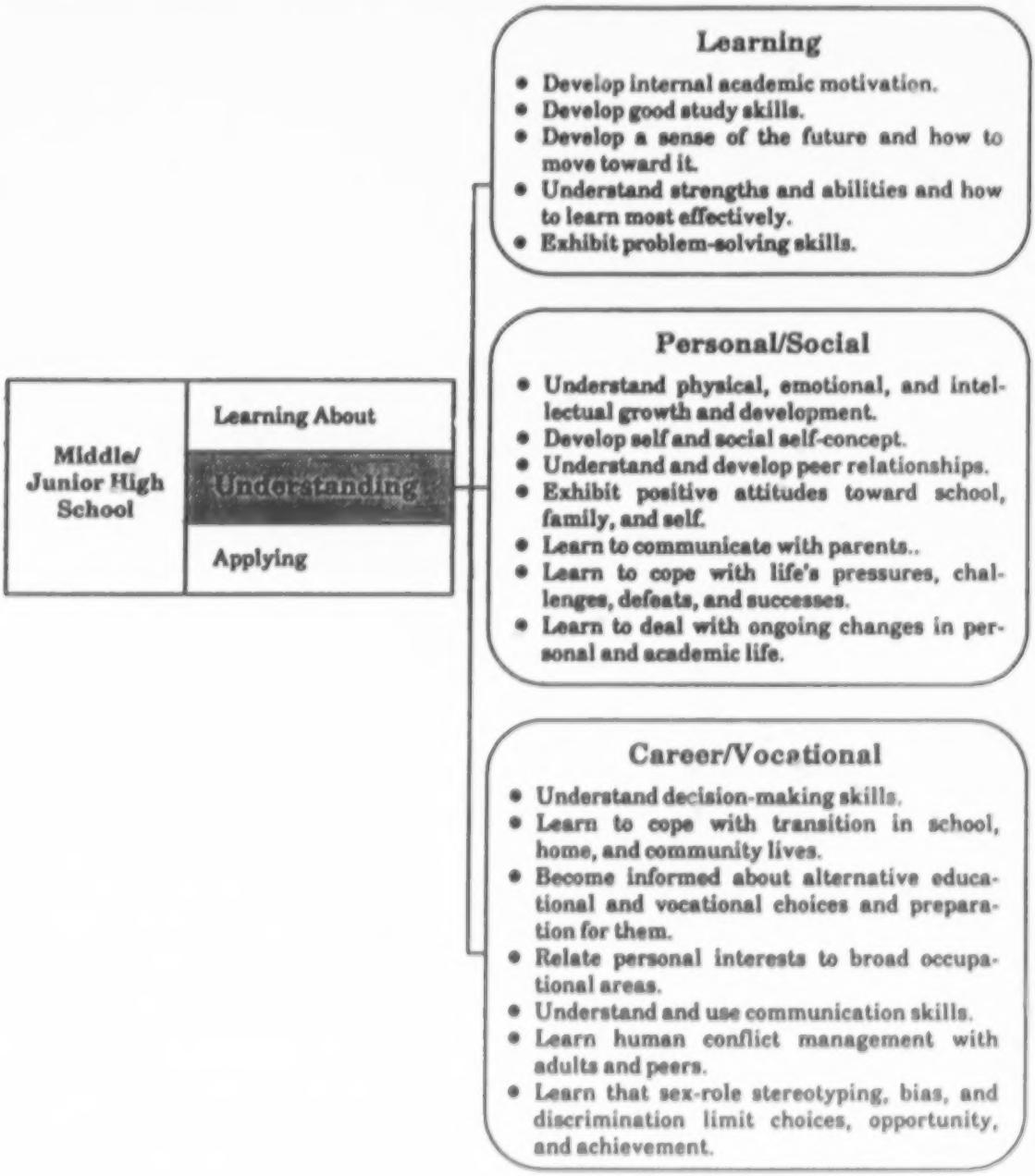
- Acquire knowledge about different occupations and changing male/female roles.
- Become aware of personal interests and preferences.
- Learn how to cooperate and coexist with others in work and play.
- Understand what it means to work and how school work relates to future plans.
- Become aware of worlds beyond the immediate experience.

Elementary School Career/Vocational Competencies

Sample activities are illustrative only. Each district can use local resources, materials, and ideas.

Competencies \ Levels of Resource Organization and Management	Counselors	Counselors + School Staff	Counselors + School Staff + Parents + Community + Business/Industry
•*Acquire knowledge about different occupations and changing male/female roles.*	Provide occupational information to be used by all teachers as a classroom resource.	Coordinate efforts to have a variety of people speak to classes about their nontraditional occupations.	Provide mentorships for students who are interested in specific occupations.
•*Become aware of personal interests and preferences.*	Work with students who have unusual vocational or avocational interests and discuss how they may pursue them.	Do group work to enable students to become comfortable with their vocational interests and lifestyle preferences.	Coordinate community efforts that allow students to pursue their vocational interests outside of school.
•*Learn how to cooperate and coexist with others in work and play.*	Provide individual counseling to help students solve specific relationship conflicts.	Form a counselor and teacher team for activities that will encourage cooperation.	Carry out staff development to promote cooperation and not competition as a school philosophy.
•*Understand what it means to work and how school work relates to future plans.*	Team teach a unit on careers and the world of work.	Develop career awareness curriculum or philosophy that provides for ongoing career education in the classroom.	Coordinate relationships among labor and industry and school concerning curriculum that realistically meets the needs of the individual and society.
•*Become aware of worlds beyond the immediate experience.*	Work with individual students to develop self-awareness.	Teach activities to enhance awareness of self in relation to the rest of the world.	Provide staff inservice to illustrate the need to be aware of self in order to relate well with others.
	Level I	Level II	Level III

Middle/Junior High School Student Competencies

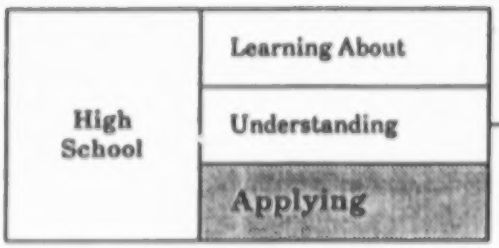

Middle/ Junior High School
Learning About
Understanding
Applying
Learning
Develop internal academic motivation.
Develop good study skills.
Develop a sense of the future and how to move toward it.
Understand strengths and abilities and how to learn most effectively.
Exhibit problem-solving skills.
Personal/Social
Understand physical, emotional, and intellectual growth and development.
Develop self and social self-concept.
Understand and develop peer relationships.
Exhibit positive attitudes toward school, family, and self.
Learn to communicate with parents..
Learn to cope with life's pressures, challenges, defeats, and successes.
Learn to deal with ongoing changes in personal and academic life.
Career/Vocational
Understand decision-making skills.
Learn to cope with transition in school, home, and community lives.
Become informed about alternative educational and vocational choices and preparation for them.
Relate personal interests to broad occupational areas.
Understand and use communication skills.
Learn human conflict management with adults and peers.
Learn that sex-role stereotyping, bias, and discrimination limit choices, opportunity, and achievement.

Middle/Junior High School Career/Vocational Competencies

Sample activities are illustrative only. Each district can use local resources, materials, and ideas.

Competencies \ Levels of Resource Organization and Management	Counselors	Counselors + School Staff	Counselors + School Staff + Parents + Community + Business/Industry
•*Understand decision-making skills.*	Work with students who exhibit an inability to make decisions.	Carry out decision-making and problem-solving activities for groups and classes.	Provide staff development on how decision making can be incorporated into all curricular areas.
•*Learn to cope with transition in school, home, and community lives.*	Hold orientations to familiarize students with the expectations of the new environment. Counsel students having difficulty adjusting to new environments.	Have classroom discussions on expectations in new environments and how to respond appropriately.	Work with teachers, parents, and others to assist students in transition periods.
•*Become informed about alternative educational and vocational choices and preparation for them.*	Provide occupational and educational information to all teachers. Ensure that students understand the impact of course choices.	Coordinate efforts to have guest speakers on various occupational areas.	Coordinate community resources to make all students more fully aware of vocational choices and the education required for them.
•*Relate personal interests to broad occupational areas.*	Administer interest inventories to students to acquaint them with their interests.	Provide discussions for students on how interests are related to occupational choices.	Carry out staff development activities on interests, occupational choices, and career development.
•*Understand and use communication skills.*	Work with students having difficulty communicating with peers or adults.	Teach communication skills. Provide interpersonal communication workshops.	Provide staff development on requiring good communication skills in all subject-area classes.
•*Learn human conflict management with adults and peers.*	Work with students who are unable to resolve conflicts in an acceptable manner.	Do group work with students to better understand differences in individual responses to conflict.	Do staff development on positive conflict resolution methods.
•*Learn that sex role stereotyping, bias, and discrimination limit choices, opportunities, and achievement.*	Counsel with students who are having difficulty making choices.	Inform students and parents about the career opportunities open to both sexes.	Promote a career day featuring parents and community members who work in traditional and nontraditional careers.
	Level I	Level II	Level III

High School Student Competencies



Learning

- Understand one's own learning abilities and how best to apply them.
- Become informed about self through assessment techniques.
- Learn to set realistic goals and develop strategies to reach them.
- Understand the school curriculum and the impact course selection will have on future plans.
- Understand the school environment and what is expected.

Personal/Social

- Understand physical, emotional, and intellectual growth and development.
- Learn to cope with change and plan for the future.
- Learn human-conflict resolution skills with adults and peers.
- Understand and appreciate one's own capabilities and those of others.
- Understand personal relationships and how to establish an independent identity.
- Take responsibility for personal decisions.

Career/Vocational

- Understand and develop decision-making skills.
- Understand the world of work and its expectations for employment.
- Become informed about educational/work alternatives.
- Understand continuous changes of male/female roles and how this relates to career choice.
- Develop the interpersonal skills necessary for harmony in the workplace.
- Become informed about up-to-date employment opportunities during and after high school.
- Form tentative career goals and strategies to reach them.
- Understand lifestyle preferences and relate them to occupational interests.

High School Career/Vocational Competencies

Sample activities are illustrative only. Each district can use local resources, materials, and ideas.

Competencies \ Levels of Resource Organization and Management	Counselors	Counselors + School Staff	Counselors + School Staff + Parents + Community + Business/Industry
•*Understand and develop decision-making skills.*	Counsel individual students experiencing difficulty making decisions.	Team teach unit on decision making and career choice.	Assist staff in incorporating decision-making skills into their curriculums.
•*Understand the world of work and its expectations for employment.*	Provide materials on occupations and postsecondary institutions.	Team with business/industry experts to teach units on employment expectations.	Assist staff to incorporate world-of-work expectations such as punctuality, responsibility, and accountability into the classroom.
•*Become informed about educational/work alternatives.*	Work with individual students on postsecondary educational and work alternatives.	Hold group discussions of educational and work alternatives after high school.	Provide staff development on postsecondary educational and work alternatives. Encourage parent involvement as students explore educational and work alternatives.
•*Understand continuous changes of male/female roles and how this relates to career choice.*	Work with individual students experiencing difficulty with the changing roles of men and women.	Hold group discussions on how the changing roles of males and females may affect career opportunities.	Assist staff to gain understanding of how societal attitudes impact on male/female role development.
•*Develop the interpersonal skills necessary for harmony in the workplace.*	Counsel with students displaying a lack of interpersonal skills.	Do group work or team teaching to discuss how interpersonal skills are required for harmony in the workplace.	Do staff development on how interpersonal skills are essential for all students as they enter the world of work.
•*Become informed about up-to-date employment opportunities during and after high school.*	Make employment opportunities and career planning materials available for student use.	Conduct groups to explore various employment and career opportunities. Team teach units on employment opportunities.	Coordinate community resources to give students opportunities to learn of numerous and varied careers. Provide mentorships for students in areas they wish to explore.
	Level I	**Level II**	**Level III**

High School Career/Vocational Competencies (continued)

Sample activities are illustrative only. Each district can use local resources, materials, and ideas.

Competencies \ Levels of Resource Organization and Management	Counselors	Counselors + School Staff	Counselors + School Staff + Parents + Community + Business/Industry
•*Form tentative career goals and strategies to reach them.*	Assist all students to choose classes that would be required and/or beneficial for their career choices.	Do group work on goal setting and strategies for reaching goals.	Assist staff to develop curriculum that will help students set career goals and strategies to reach them.
•*Understand lifestyle preferences and relate them to occupational interests.*	Work with individual students to discuss occupational interests. Administer and interpret interest inventories for students.	Provide opportunities to discuss lifestyles and various occupational interests with community members.	Assist staff to incorporate information on various lifestyles and occupational interests into the curriculum.
	Level I	**Level II**	**Level III**

Appendix C

Labor Market Terms

Labor Supply–People and Workers

Labor Supply. Includes all persons 16 years and older that are potentially available to join the work force.

Total Labor Force. Includes the civilian labor force (see definition below) and members of the Armed Forces stationed either in the United States or abroad counted by their place of residence.

Labor Force Participation Rate. Comprised of the proportion of the total civilian noninstitutional population or a demographic subgroup, 16 years old and over, that is in the labor force.

Not in The Labor Force. Includes all civilians 16 years old and over who are not classified as employed or unemployed. This group consists mainly of students, unsalaried homemakers, retired workers, seasonal workers during an "off" season who are not looking for work, inmates in institutions, disabled persons, and unpaid persons working less than 15 hours a week in a family business or farm.

Civilian Labor Force. Comprises the total of all civilians, 16 years old and over, classified as employed or unemployed and looking for work. The labor force counts one person to a job based on the person's place of residence.

Experienced Civilian Labor Force. Includes the employed and the experienced unemployed—that is, unemployed persons who have worked at any time in the past.

Civilian Work Force. Made up of all civilians, 16 years old and over, classified as employed on a place-of-work basis plus unemployment on a place-of-residence basis. The employment by place-of-work in the civilian work force, as opposed to the civilian labor force, is not adjusted for commuting in labor areas or for multiple jobholding (moonlighting).

Total Unemployment. Comprised of the number of persons, 16 years old and over, on a place-of-residence basis, who did not work at all during the reference week which includes the 12th of the month, were looking for work, and were available for work during the reference week except for temporary illness. Also included as unemployed are those who did not work at all during the survey week, were available for work, and (a) were waiting to be called back to a job from which they had been laid off or (b) were waiting to report to a new wage or salary job scheduled to start within the following 30 days.

Unemployment Rate. Represents the number of unemployed as a percent of the civilian labor force (i.e., the sum of the employed and the unemployed).

Seasonally Adjusted. Comprised of data that has been statistically adjusted to remove the recurring seasonal pattern to better show the underlying trend.

Underemployed. Describes persons working full or part-time below their earning capacity or level of competence. The terms underemployment and underutilized are used interchangeably. Underemployment has also been defined as "involuntary part-time employment" (i.e., employment of a person on a part-time basis when full time work is desired).

Discouraged Workers. Describes persons not included in the unemployment count, who make no active attempt to find a job because they think none is available, or they believe they lack the skills necessary to compete in the labor market. Many discouraged workers are women and teen-agers, but the number of male adult workers typically increases during prolonged periods of high employment.

Economically Disadvantaged Individual. Describes an individual who is a member of a family (1) which receives cash welfare payments, or (2) which has a total annual income, in relation to family size and location, that does not exceed the most recently established poverty

levels determined in accordance with criteria established by the Office of Management and Budget (OMB).

Quit. A quit is a termination of employment initiated by the employee for any reason except to retire, to transfer to another establishment of the same firm, or for service in the Armed Forces.

Layoff. A layoff is a suspension from pay status lasting or expected to last more than seven consecutive calendar days, initiated by the employer without prejudice to the worker.

Occupational Mobility. Describes the movement of workers from one occupation to another. At times, this term is used to refer to the willingness or ability of workers to make this move. Occupational mobility can simply be a change in jobs because a worker wants to try something new.

Upward Mobility. Describes the movement in the work force toward jobs of higher socioeconomic status. Higher education is the main force behind upward mobility.

Career Ladder. Identifies a path of "upward" occupational mobility. It is a vertical progression from an entry-level position to a journeyman level position usually within the same occupational classification.

Career Lattice. Identifies horizontal and/or diagonal paths of occupational mobility leading from the entry level. Most often these paths link parallel paths of vertical or upward occupational mobility. A horizontal path of occupational mobility is often called a job transfer while a diagonal path is often referred to as a transfer-promotional path. This "lateral" mobility usually occurs within a occupational field (i.e., engineering, accounting) but usually not the same specific occupational classification.

Geographic Mobility. Identifies the willingness of people to move from one geographic area to another to seek employment.

Labor Demand–Industries and Jobs

Labor Demand. Describes the need of employers to hire workers to fill job openings caused by growth or expansion of the firm or to replace workers who have left the firm.

Expansion Demand. Describes new job openings created by expansion or growth in a given occupation or industry. (See Labor Demand and Replacement Demand.)

Replacement Demand. Refers to the demand for workers existing because employers need to replace workers who die, retire, or leave their jobs to migrate to different areas or transfer to different occupations.

Entry Level Jobs. Jobs in which employers will accept and hire workers for which no work experience is required. Any job, even though training and/or educational requirements may be extensive, is considered entry level if no previous experience is required.

Training Level Jobs. Jobs where the employer expects to provide on-the-job training to the worker.

Job Vacancies. Defined as vacant jobs which are immediately available for filling, and for which the firm is actively trying to find or recruit workers from outside the firm.

New Hire. A temporary or permanent addition to the employment roll of an establishment. This includes those who have never before been employed by the establishment or former employees who were not recalled.

Recall. Permanent or temporary additions to the employment roll of persons specifically recalled to jobs in the same establishment of the employer following a period of layoff lasting more than seven consecutive days.

Occupational Shortage. Describes two labor market situations, both of which are characterized by a chronic shortage of workers needed to fill the available openings for an occupation. In one case, there is a lack of qualified workers to meet the demand. In the other, workers cannot be attracted to fill job openings under offered wages and working conditions.

Self-Employed Workers. Persons who work for profits or fees in their own unincorporated business, trade, or professional practice. Persons working in their own incorporated business are counted as wage and salary workers.

Current Employment Statistics (CES) Program (BLS-790). A federal/state cooperative program conducted by BLS in cooperation with state employment security agencies. It provides employment, hours, and earnings

information on a national, state, and area basis in considerable industrial detail. Data is collected monthly from a sample of 180,000 nonfarm establishments. From this data, over 2,600 separate published series are compiled nationwide each month. These contain data on nonagricultural wage and salary employment, production or non-supervisory worker employment, the number of women employed, and average weekly earnings. The monthly series are published for the nation as a whole, each of the 50 states, D.C., and the major labor market areas described in *Employment and Earnings*.

General Activity Terms

Industry. A generic term used in the compilation of economic statistics which indicates the primary type of goods or services produced by an establishment. Industries are classified in the *Standard Industrial Classification Manual* of 1972, according to three levels of industrial detail.

Job Families. A group of jobs closely related on the basis of similar job or worker characteristics required for successful worker performance. Examples of such characteristics are experience, training and education, duties performed, tools, machines, and other aids and materials used on the job. The *Dictionary of Occupational Titles*, Third Edition, Volume II includes a Worker Traits Arrangement. Jobs are categorised in 114 groups according to some combination of general educational development, specific vocational preparation, physical demands, and other worker characteristics typically required for those jobs.

Projections. Estimates of future possibilities based on current trend(s).

Forecast. Anticipated eventualities stated in terms of probability, not certainty.

Occupational Projections. Estimates of future occupational employment based on current trends and specified assumptions.

Labor Markets

Labor Area. Consists of a central city or cities and the surrounding territory within commuting distance. It is an economically integrated geographical unit within which workers may readily change jobs without changing their place of residence. Labor areas generally contain one or more counties. **Major labor areas** usually include at least one central city with a population of 50,000 or more. In most instances, boundaries of major labor areas coincide with those of Standard Metropolitan Statistical Areas (SMSA's) as determined by the Office of Management and Budget (OMB) in consultation with a Federal interagency committee. The area normally takes the name of its central city or cities. In some cases, the boundaries of the labor areas cross state lines.

Standard Metropolitan Statistical Area (SMSA). Defined as a county or group of counties containing at least one city with a population of 50,000 or more, plus adjacent counties which are metropolitan in character and are economically and socially integrated with the central city. There is no limit to the number of counties so long as all criteria are met. SMSA's may cross state lines. Specific information on criteria for qualification as an SMSA are contained in *Standard Metropolitan Statistical Areas 1975*, Statistical Policy Division, Office of Management and Budget, Executive Office of the President.

Economic Indicators. Measurements of various economic and business movements and activities in a community, such as: employment, unemployment, hours worked, income, savings, volume of building permits, volume of sales, etc., whose fluctuations affect and may be used to determine overall economic trends. The economic time series can be segregated into leaders, laggers, and coinciders in relation to movement in aggregate economic activity.

Wages, Compensation and Earnings

Income. The amount of dollar income received from any of the following sources: (1) money wages or salary; (2) net income from nonfarm self-employment; (3) net income from farm self-employment; (4) social security, veterans' payments, or other government or private pensions; (5) interest (on bonds or savings), dividends, and income from annuities, estates, or trusts; (6) net

income from boarders or lodgers, or from renting property to others; (7) all other sources such as unemployment benefits, public assistance, alimony, etc. The amounts received represent income before deductions for personal taxes, social security, bonds, etc.

Job Analysis. Job analysis is the process of determining by observation, interview, study and recording, pertinent information relating to the nature of a specific job. It is the determination of the tasks which comprise a job and of the traits and skills required of the worker for successful job performance.

Appendix D

Annotated Guide to Using Periodical Labor Market Information Publications

Current information on the labor market is something that cannot be provided in this handbook. The Wisconsin Career Information System provides annual updates of all information contained in that system. To complement this current source of information, four periodical publications are available throughout the year. Two of these are: *Wisconsin Economic Indicators* and *Wisconsin Employment Picture*, published each month by the Wisconsin Department of Industry, Labor and Human Relations. These two publications cover the Wisconsin economy and the labor force in a summary fashion with tables, charts, and graphs supported by narrative. Both are available free upon request. For copies, write the Department of Industry, Labor and Human Relations, Box 7944, Madison, Wisconsin 53707.

Two additional publications, *Monthly Labor Review* and *Occupational Outlook Quarterly*, are produced by the U.S. Department of Labor, Bureau of Labor Statistics. These are available from the Government Printing Office, 517 South Wisconsin Avenue, Room 190, Milwaukee, Wisconsin 53403. The cost for *Monthly Labor Review* is $24.00 per year and *Occupational Outlook Quarterly* is $11.00 per year.

The following pages have been taken from these four publications and annotated to provide examples of the kind of information available and how it might be used. Only a few examples can be shown here. Each publication has extensive current information. These publications will complement the descriptive information and data provided in the Wisconsin Career Information System.

Examples from MONTHLY LABOR REVIEW

Chart 1. Employment changes by major industry division, fourth-quarter 1984–1985

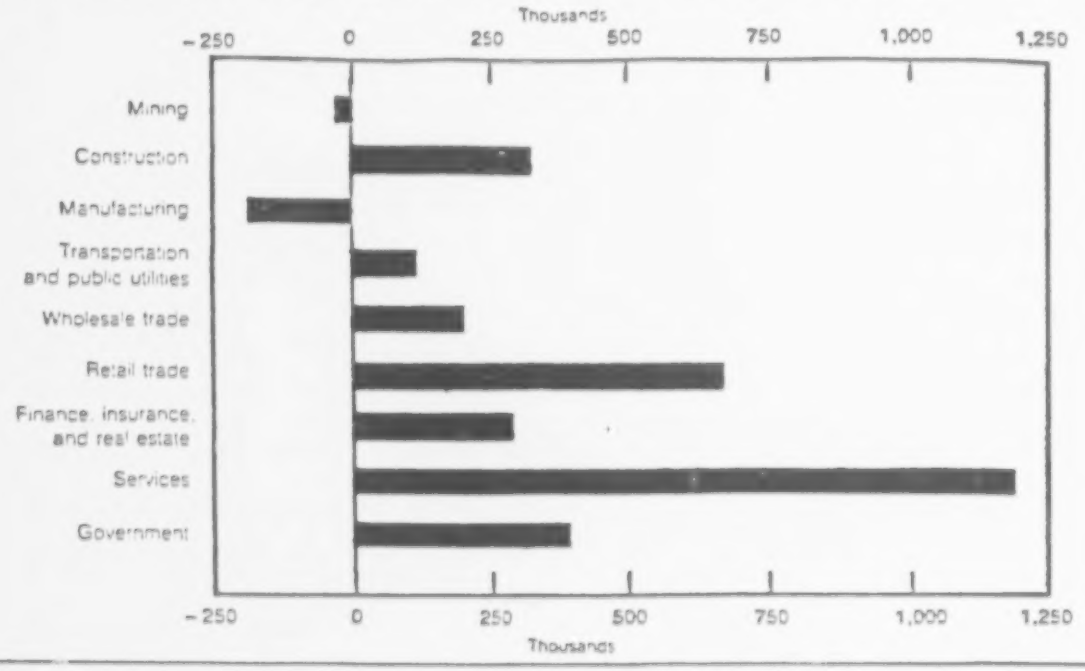
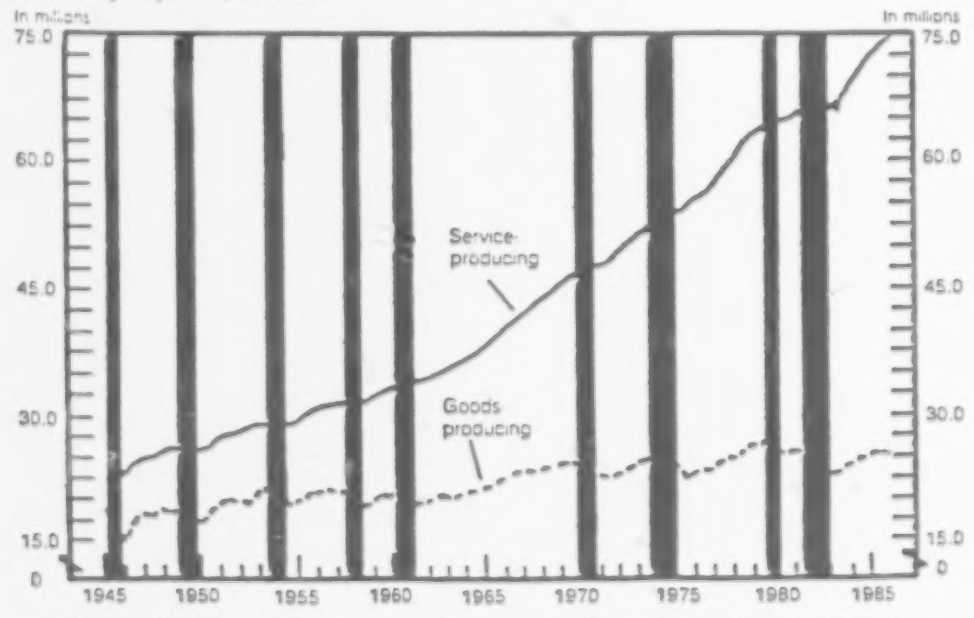


Chart 2. Employment in the service-producing and goods-producing sectors, seasonally adjusted, 1945–85



NOTE: Shaded areas indicate recessions as designated by the National Bureau of Economic Research

Examples from WISCONSIN'S EMPLOYMENT PICTURE

LOCAL AREA UNEMPLOYMENT RATES/SEASONALLY-ADJUSTED*
(*SMSA = Standard Metropolitan Statistical Area)

	Latest Month (preliminary)		Previous Month (revised)		Year Ago	
	Number	Rate	Number	Rate	Number	Rate
Appleton-Oshkosh SMSA	11,200	6.9 %	11,100	6.9 %	9,500	6.1 %
Eau Claire SMSA	4,500	6.6 %	4,400	6.5 %	4,600	7.0 %
Green Bay SMSA	6,100	6.1 %	5,900	5.9 %	5,700	5.9 %
Janesville-Beloit SMSA	7,400	10.8 %	[illegible]	9.2 %	3,600	5.3 %
Kenosha SMSA	6,000	11.5 %	6,200	12.2 %	7,000	13.2 %
La Crosse SMSA	2,900	5.6 %	3,000	5.8 %	2,800	5.7 %
Madison SMSA	9,700	4.4 %	8,900	4.1 %	8,200	4.1 %
Milwaukee SMSA	42,600	6.1 %	42,800	6.2 %	42,900	6.3 %
Racine SMSA	7,100	8.4 %	7,000	8.3 %	7,100	8.5 %
Sheboygan SMSA	3,200	5.8 %	3,400	6.1 %	2,700	5.1 %
Wausau SMSA	4,000	7.1 %	4,200	7.1 %	4,200	7.3 %

Area with major increase in unemployment

Contact these Job Service Offices for more information on SMSA data:

Menasha	414/725-5300	Oshkosh	414/424-2000	Green Bay	414/497-8169
Madison	608/266-1492	Milwaukee	414/224-4220	Kenosha	414/656-7000
Eau Claire	715/836-2901	Janesville	608/755-3500	La Crosse	608/785-9300
		Racine	414/636-3577	State	608/266-7034
		Sheboygan	414/459-3840	Wausau	715/842-2840

EARNINGS AND HOURS

				Net Change from Yr-Ago
Average weekly earnings for manufacturing production workers	$ 419.42	$ 421.84	$ 411.05	+$ 8.37
Average weekly hours for manufacturing production workers (unadj.)	41.2	41.0	40.9	+ 0.3

Increasing weekly wages and hours point to improving economy

Employment by Major Industrial Sector (Not Seasonally Adjusted)

	Mid-August Employment	Change From Month Earlier	Change From Year Ago
Manufacturing	528,900	+ 4,800	+ 500
Durable Goods	314,100	- 400	+ 800
Non Durable Goods	214,800	+5,200	- 300
Trade	481,900	+ 3,800	+10,900
Services/Misc.	437,900	+ 3,500	+14,200
Government	304,100	- 2,300	+ 7,300
Finance/Insurance/ Real Estate	110,100	+ 200	+ 4,300
Transportation/Communications/Elec./ Gas/Sanitation	92,400	+ 600	+ 1,400
Contract Construction	70,900	+ 900	+ 1,100
Mining	3,000	0	+ 300
TOTAL/Nonfarm Wage & Salary Employment	2,022,100	+ 11,400	+40,200

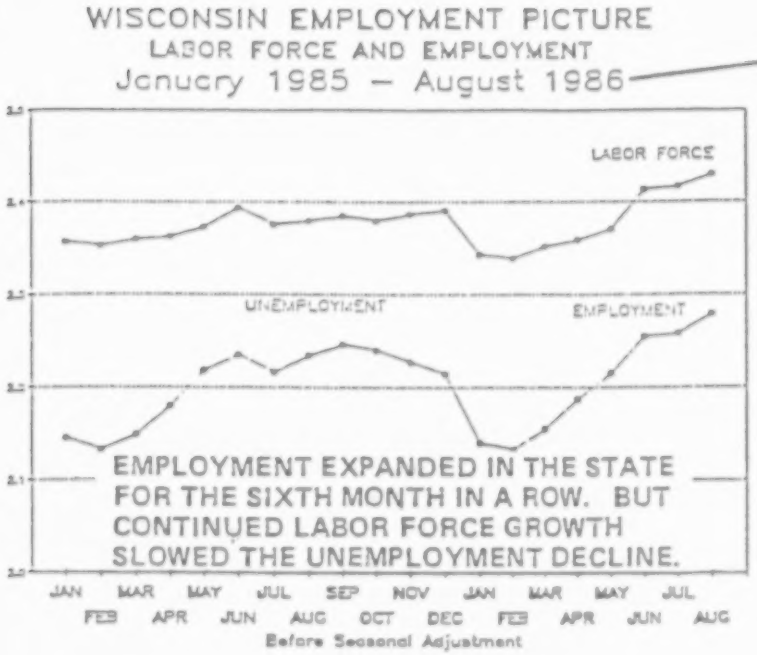
Services, Government, Finance, etc. are gaining in employment

	October 1986	September 1986	October 1985
1. Texas	9.2%	8.7%	7.1%
2. Ohio	8.2%	8.0%	9.5%
3. Michigan	8.2%	8.9%	10.1%
4. Illinois	8.1%	7.8%	9.0%
USA	6.5%	6.9%	7.2%
5. Pennsylvania	6.6%	6.7%	7.7%
6. California	6.6%	7.1%	6.7%
7. Florida	6.0%	6.5%	5.9%
8. New York	6.0%	6.2%	6.2%
9. North Carolina	5.7%	4.9%	5.8%
10. New Jersey	4.7%	5.5%	4.5%
11. Massachusetts	3.9%	3.7%	4.2%
For comparison: Wisconsin	7.0%	7.0%	6.9%

Comparison of Wisconsin's unemployment to other states for one month and one year intervals.

Wisconsin's unemployment rate is increasing faster than the nation's.

Examples from WISCONSIN'S EMPLOYMENT PICTURE


WISCONSIN EMPLOYMENT PICTURE
LABOR FORCE AND EMPLOYMENT
Jonuory 1985 – August 1986
LABOR FORCE
UNEMPLOYMENT
EMPLOYMENT
EMPLOYMENT EXPANDED IN THE STATE FOR THE SIXTH MONTH IN A ROW. BUT CONTINUED LABOR FORCE GROWTH SLOWED THE UNEMPLOYMENT DECLINE.
JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC JAN FEB MAR APR MAY JUN JUL AUG
Before Seasonal Adjustment

Graph shows 20 months of labor market movement

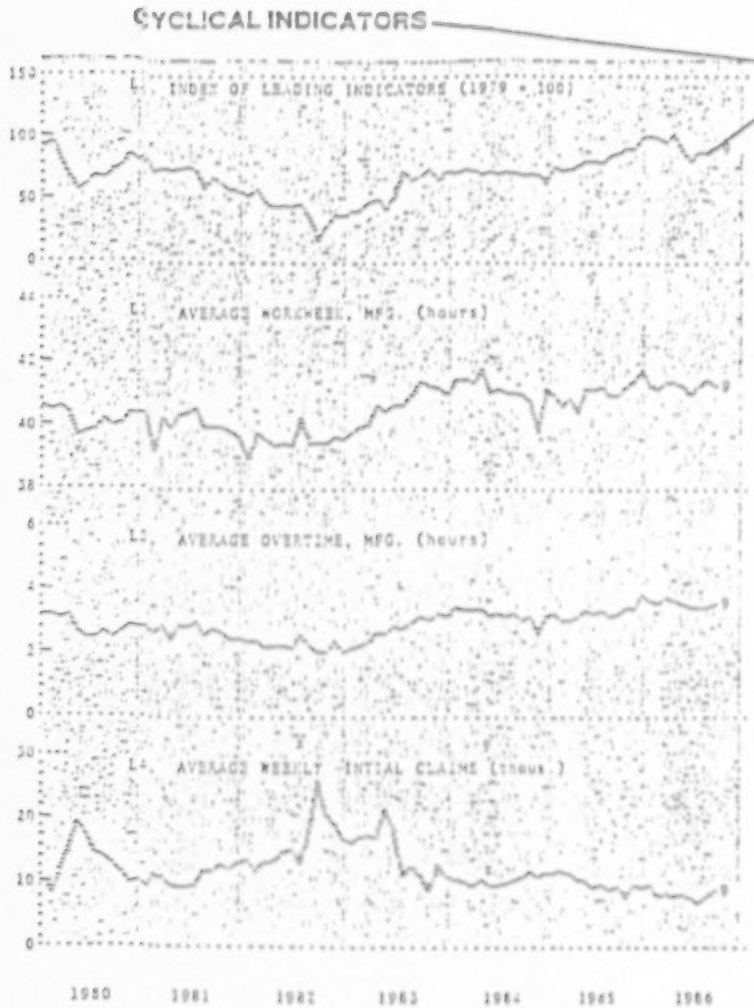
Gap between labor force and employment equals unemployment

Comments explain significant observations

Four year comparison

Shows relative position of Wisconsin's unemployment to the nation's unemployment.

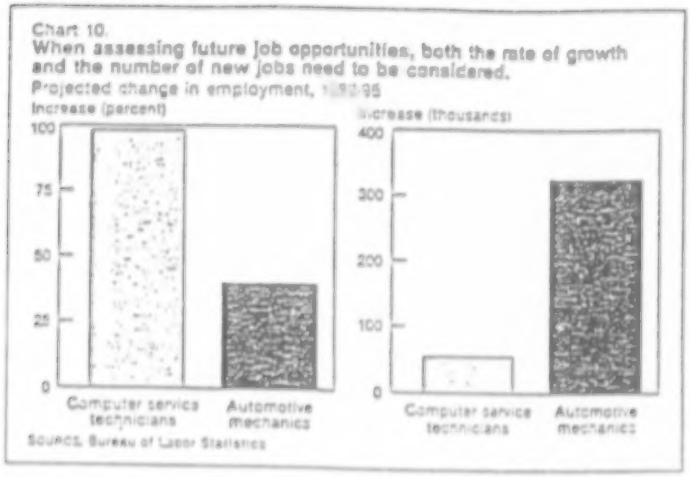
Examples from WISCONSIN ECONOMIC INDICATORS



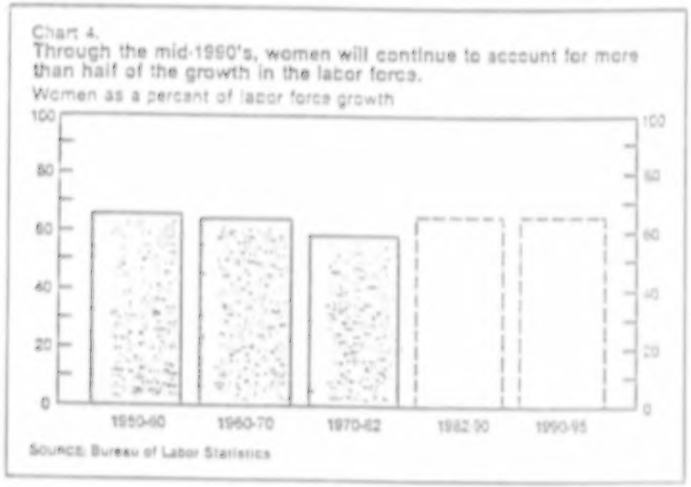
Cyclical indicators respond to and/or reflect status of the economy.

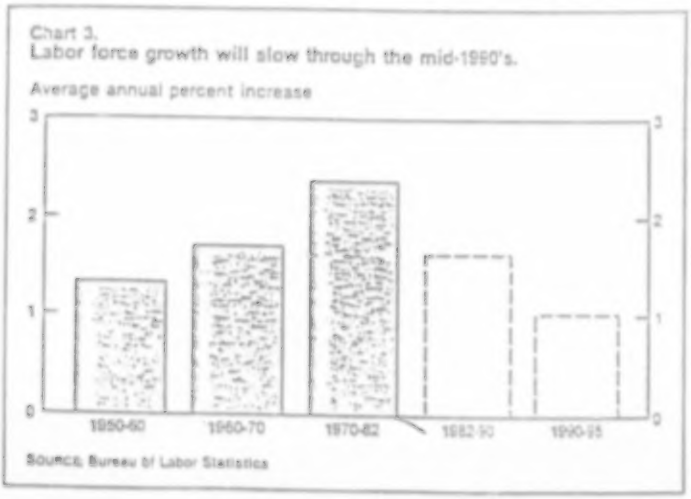
WISCONSIN EMPLOYMENT ESTIMATES SEPTEMBER	(In Thousands)			Pct. Chg.	
	Latest Month	Month Ago	Year Ago	Month Ago	Year Ago
TOTAL NONFARM WAGE AND SALARY WORKERS	2051.9	2031.4	2016.1	1.0	1.8
Unadjusted					
Manufacturing	527.1	529.1	527.6	-0.4	-0.1
Mining	3.0	3.0	2.7	0.0	11.1
Contract Construction	70.6	71.0	70.4	-0.6	0.3
Transportation and Public Utilities	96.4	93.0	96.0	3.7	0.4
Elec., Gas and Sanitary Services	17.7	17.9	17.3	-1.1	2.3
Wholesale Trade	98.4	99.0	98.6	-0.6	-0.2
Retail Trade	384.8	385.3	374.6	-0.1	2.7
General Merchandise	46.9	46.8	47.0	0.2	-0.2
Finance, Insurance and Real Estate	109.3	110.2	104.9	-0.8	4.2
Banking	28.8	29.0	28.3	-0.7	1.8
Insurance	36.4	36.5	34.2	-0.3	6.4
Service and Macellaneous	436.0	437.5	422.1	-0.3	3.3
Hospitals	67.3	67.3	66.2	0.0	1.7
Private Education	22.2	20.0	23.5	1.0	-5.5
Government	326.4	303.3	319.2	7.6	2.3
State Government	86.0	78.1	83.3	10.1	3.2
Local Government	212.3	196.7	208.0	7.9	2.1

Examples of the charts and information found in OCCUPATIONAL OUTLOOK QUARTERLY



The chart illustrates the point that comparing percentages can be misleading when one occupation has significantly fewer employees than the other.





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The World of Work

	Job requirements										Work environment			Occupational characteristics			
	1. Leadership/persuasion	2. Helping/instructing others	3. Problem-solving/creativity	4. Initiative	5. Work as part of a team	6. Frequent public contact	7. Manual dexterity	8. Physical stamina	9. Hazardous	10. Outdoors	11. Confined	12. Geographically concentrated	13. Part-time	14. Earnings	15. Employment growth	16. Number of new jobs, 1984-95 (in thousands)	17. Entry requirements
Executive, Administrative, and Managerial Occupations																	
Managers and Administrators																	
Bank officers and managers	●	●	●	●	●	●				●			H	H	119	H
Health services managers	●	●	●	●	●	●							H	H	147	H
Hotel managers and assistants	●	●	●	●	●	●							[1]	H	21	M
School principals and assistant principals	●	●	●	●	●	●							H	L	12	H
Management Support Occupations																	
Accountants and auditors		●	●		●	●				●			H	H	307	H
Construction and building inspectors		●	●	●	●		●		●				M	L	4	M
Inspectors and compliance officers, except construction		●	●	●	●		●		●				H	L	10	M
Personnel, training, and labor relations specialists	●	●	●	●	●	●							H	M	34	H
Purchasing agents	●		●		●	●							H	M	36	H
Underwriters			●										H	H	17	H
Wholesale and retail buyers	●	●	●	●	●								M	M	28	H
Engineers, Surveyors, and Architects																	
Architects			●	●	●	●	●						H	H	25	H
Surveyors	●				●		●	●		●			M	M	6	M
Engineers																	
Aerospace engineers			●	●	●							●	H	H	14	H
Chemical engineers			●	●	●								H	H	13	H
Civil engineers			●	●	●								H	H	46	H
Electrical and electronics engineers			●	●	●								H	H	206	H
Industrial engineers			●	●	●								H	H	37	H
Mechanical engineers			●	●	●								H	H	81	H
Metallurgical, ceramics, and materials engineers			●	●	●								H	H	4	H
Mining engineers			●	●	●								H	L	[2]	H
Nuclear engineers			●	●	●								H	L	1	H
Petroleum engineers			●	●	●							●	H	M	4	H

[1] Estimates not available.
[2] Less than 500.